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Some Experiences of Rhinoplasty

BY

R. VENKAT RAO (Hyderabad-Dn.)

Plastic Surgery of the nose is practised more today in advanced Western countries than in India, though the origin of Rhinoplasty is traced to this country, by the medical historian. The people in the West are personality-conscious, and this trend is still to manifest itself here. The Italian surgeons, later Gilles, Jacques Joseph and several other surgeons have contributed to the development of the present technics of Rhinoplasty; modern warfare, automobile accidents have supplied the necessary material to these surgeons.

My experience is mostly restricted to the correction of gross defects as a result of trauma or disease, and so this paper does not deal with all the various aspects of Rhinoplasty.

Group I: Loss of tissues of the mobile lower two-thirds of the nose (Fig. 1) as a result of trauma.

Group II: Depression of the rigid bridge.

Group I.—The structures, maintaining the shape of the lower two-thirds of the nose, are semi-rigid, and elastic and allow mobility; and consist of the septal cartilage, and the paired lateral and greater alar cartilages (Fig. 2).

It is necessary to study the general configuration of the face and the proportion of the nose to the face. There are racial and individual variations—flat and broad, round and small, and oval face with a sharp chin. The length of the nose is nearly a third of that of the face. The nose projects from the face subtending an angle of 30° to 40°, and the collumellar-labial angle varies from 90° to 120° (Fig. 3).

Photographs of the front view, and profile were taken in every case, before and after the repair. This helps in planning the repair and checking the result.

It is necessary to study the psychological make up of the patient, before the repair is undertaken; this will save a good bit of trouble and worry later.

The repair is planned carefully in every case after a correct assessment of the extent of the tissues requiring to be replaced. These may be obtained as follows:—

A. Skin for the dorsum.—(a) from the forehead (Fig. 4) (b) from the neck above the clavicle (Fig. 5). (c) from the medial surface of the arm (Fig. 6).

B. Supporting structure.—Antogenous Costal Cartilage.

C. Lining for the vestibule and interior of nose.—(a) Full thickness skin graft from the thigh. (b) the skin of the dorsums of the cut nose is turned down (Fig. 7).

A pedicle flap is raised from the donor area, the proximal part is tubed to prevent infection, the raw surface of the distal part may be skin grafted at once (Fig. 8). When it is ready it is brought down to the site of repair. The fashioning of the columella and the anterior naries requires a little experience; this stage is undertaken first because of the rich blood supply from both superior labial arteries, and minor adjustments are more easily performed when necessary (Fig. 9).

Results.—In most of the cases the repair was satisfactory. (Figs. 10, 11, 12, 13 & 14).

In two cases, the flap from the donor area began to shrink very rapidly, and resembled a drying orange peel, in one case the result was poor and in the other the repair was abandoned—The flaps were from the neck and arm (Fig. 15).

It is my opinion that skin which is thick in appearance and studded with big pores is unsuitable; the skin must be soft, uniform in texture, and freely mobile.

Small defects in the rim of the naries or the tip can be repaired by full thickness grafts from the lobule of the ear (Fig. 16).

Group II.—Depression of the bridge. The causes of this were mostly syphilis (Congenital) and a few acquired. Long standing, neglected atrophic rhinitis also provided two cases (Figs. 17, 18 & 19).

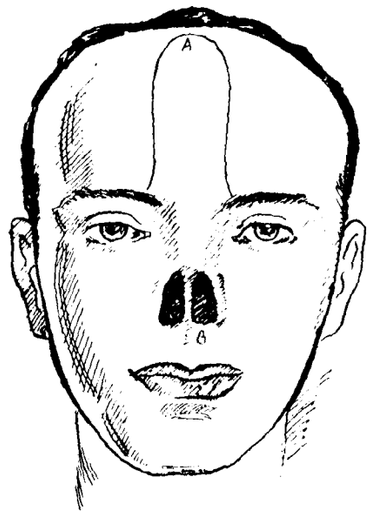

Fig. 1.

Illustrates the nasal defect and the outline of the forehead flap.

Fig. 2.

Illustrates the folding in of the flap to form nostrils and septum of the nose.

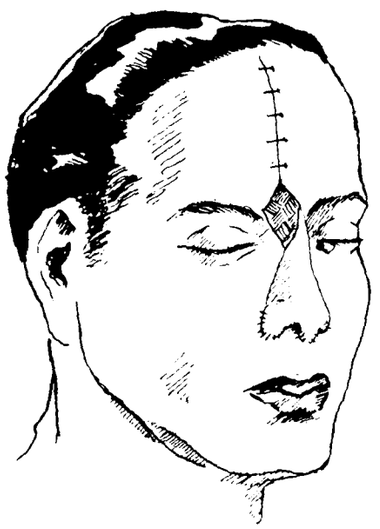

Fig. 3.

Shows the stitching after the folding of the flap.

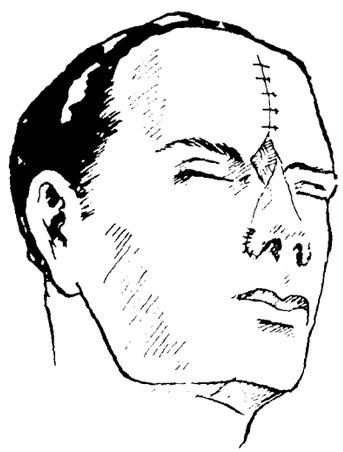

Fig. 4.

Another view showing the stitching of the newly formed nose.

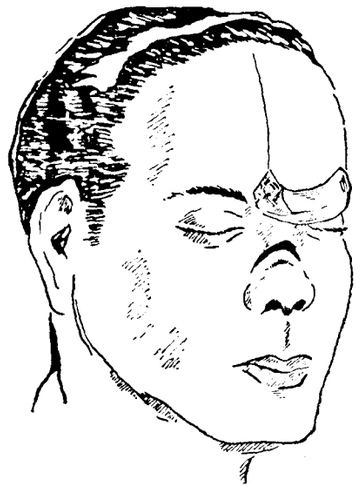

Fig. 5.

The upper part of the flap is divided and turned up.

Fig. 6.

The upper part of the nasal defect is stitched and also the upper portion of the flap is returned back stitched.

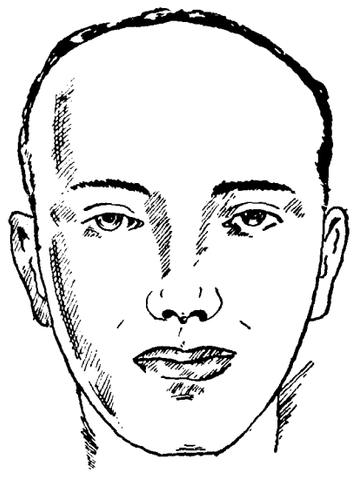

Fig. 7.

Final Results.

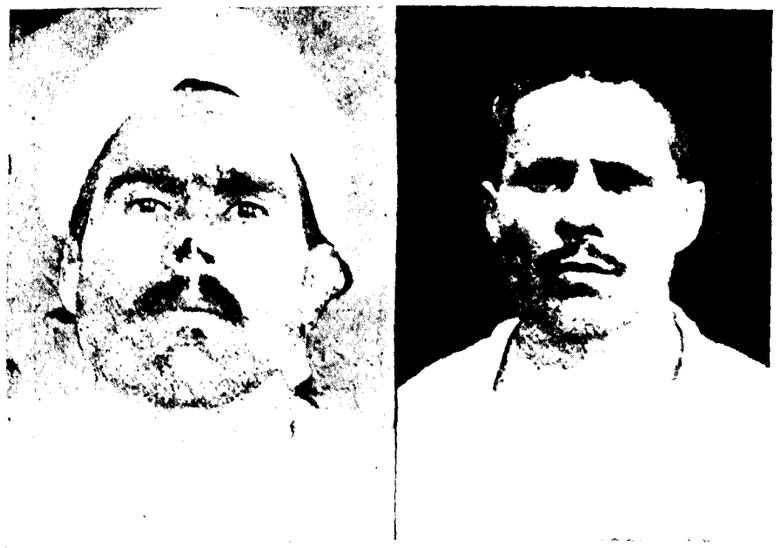

Fig. 8.

Before Operation. After Operation.

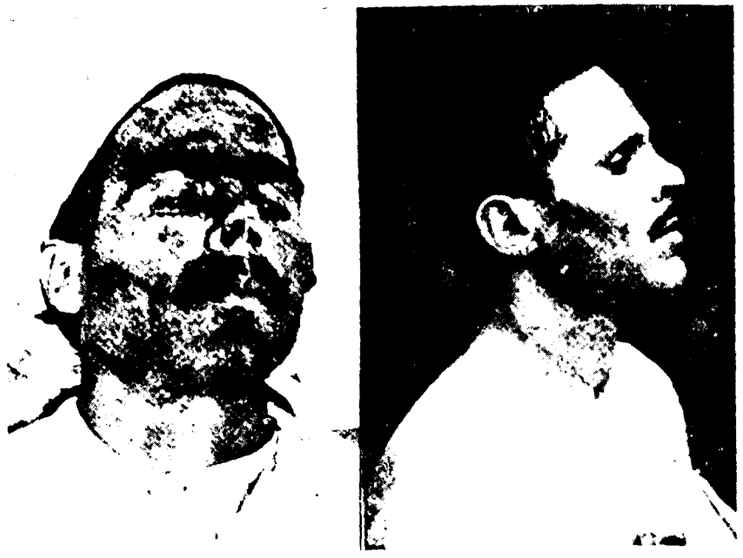

Fig. 9.

Before Operation. After Operation.

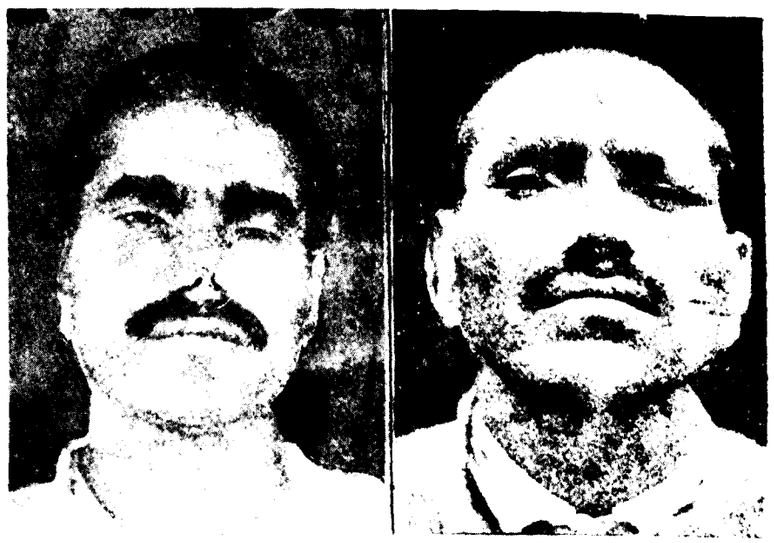

Fig. 10.

Before Operation. After Operation.

Fig. 11.

Before Operation. After Operation.

The problem in these cases is to rebuild the bridge and keep it fixed.

The extent of the defect can be best gauged by taking of plaster cast of the entire nose and the surrounding part of the face. With dental wax, the defect is filled up so as to get an idea of the repair necessary to restore the normal appearance. The wax fill-up or mould, should guide the surgeon to fashion the supporting structure.

Material used for the supporting structure: (a) Cancellous bone from the hip-bone. (b) Antogenous cartilage. (c) Acrylic resin cast.

The choice of the material follows the above order.

After shaping the replacing material, it is inserted in the intended position through the usual approach in the vestibule of the nose.

Cancellous bone gives the best result; if cartilage is used it should be boiled.

I will cite one case in particular, because of the nature of repair involved.

Miss. K, 16 H. (Figs. 20 & 21).

Parents anxious to get her married. In addition to the defect seen in the picture, she had a perforated nasal septum extensively involving both the cartilaginous and bony part. The nose was full of foul smelling crusts. Premaxilla was carious with no teeth, and behind it an irregular perforation through the hard palate with a granulating margin. (X-Ray picture). W. R. & Kahn tests—Strong positive.

Six months later when serological tests for syphilis were negative after repeated examinations an acrylic resin mould was made, and a prosthetic covering the premaxilla and the perforation in the hard palate was fitted. The nose was still septic, and to prevent sepsis of the operation area, the acrylic resin mould (Figs. 22 & 23) was inserted through an approach from the dorsal surface of the nose with the result as seen in (Figs. 24 & 25).

I have made bold to present my experience to this assembly, so that better work in Rhinoplasty will be stimulated.

I am indebted to Dr. Upendranath, dental surgeon, for his help in some of the cases.

Rhinoplasty

BY

Dr. Y. V. SACHDEVA, Amritsar.

The repair of nose was being undertaken in India from time immemorial. It was made known to European Surgeons in 1794, and the first English Surgeon to make practical and successful use of this information was Joseph Constantive Coprue; Surgeon at a private medical school in London. Since that time, a large number of modifications have been carried out by various surgeons from time to time in different countries.

The Italian method is to take a flap from the arm and in the French method the flap is taken from the face from both sides of the nose. The old Indian method is to take a forehead flap. The classic Indian method of rhinoplastic procedure has many advantages over others :—

(1) The skin of the forehead when transposed over the nose to cover a defect harmonizes very well with the skin of the face.

(2) The abundant blood supply of the flap makes it possible to utilize long flaps without any danger of sloughing.

(3) As the forehead is in such a close proximity to the nose, the operative procedure is simple and does not require any cumbersome immobilising devices.

(4) A fair amount of tissues is available from the forehead to cover most of the nasal defects which cannot be taken from the face without disfiguring it seriously.

The only objection to the use of forhead flap has been the resulting secondary deformity in the form of scars over the forehead which has however been met with in the procedure to be described.

While working in the Mayo hospital Lahore my Chief late lamented Col. B. S. Nat and I got interested in this work as the patients with cut noses coming to the Hospital were fairly large. In the year 1946 there were 14 cases admitted for the

repair of these defects. Since partition the number of such cases has been very small. In fact, I have not been able to lay my hands on any cut nose for the past 6 years.

In this procedure a median flap is taken from the forehead by making two parallel incisions over the forehead extending from above the frontal eminence of the hair line on both sides. The width of the flap so marked depends upon the nasal defect. The flap is raised from its bed and when it reaches the region of eyebrows blunt dissection is carried downwards almost to the root of the nose, thus saving the frontal vessels from injury. This flap is then employed to repair the defect of the nose. The defect of the forehead is closed immediately by approximating the edges of the forehead wound. The resulting vertical scar in the centre of the forehead is a surprisingly inconspicous line. There is upper limit to the size of the flap, otherwise hair bearing area is included in the flap. The size of the forehead and the degree of the elasticity of skin have a bearing on the use of this method. Patients with low hairline do not supply much tissue for the repair of large defects. In these cases former method of taking curved flaps can be used with advantage. The free end of the flap is brought to the nasal defect and the flap is folded in such a way that two depressions are produced in the future nostrils on either side and a median vertical fold to form the septum. This gives a normal shape to the nose forming the alae and the septum. The shape can be altered by the amount of folding to suit the nasel defect. Thereafter the edges of the nasal defect are freshened by pairing the margins Having controlled the bleeding the stitching of the flap to the raw area is started. The tip of the flap A is stitched to the septum at B. Stitching must start at the septal end and proceed towards the alae. The outer stitches are then applied. Any skeletan stiffening that may be found necessary is grafted at a latter stage. With this method it is seldom required. This method has the following advantages.

1. It is simpler.
2. It can fill most of the types of the nasal defects.
3. The number of operations is reduced to two.
4. The patient can leave the hospital in about six weeks.
5. The aesthetic results are superior.

A case of painful spasm of Oesophagus

BY

B. TIRUMALA RAO, F.R.C.S., D.L.O.

It was stated by Thomson and Negus (1948) that although radiologists occasionally report spasmodic dysphagia in regions other than the upper and lower ends of the gullet, such cases are attributable to organic stenosis and not to spasm alone. The case presented below is an example of a spasmodic condition of the lower part of oesophagus in which no organic stenosis was detectable.

I. R. a male aged 18 years admitted with a complaint of pain and difficulty in swallowing food. Date of admission : 1—2—1946. Date of discharge : 25—2—1946.

There was nothing noteworthy in his family or personal history. It was about a year since he noticed in swallowing a pain in the chest. The difficulty was for swallowing solids as well as liquids. Food as it was swallowed was sometimes regurgitated. General condition : poorly nourished, not anaemic.

A radiograph with a barium swallow revealed a segmented appearance of the lumen of the lower part of the oesophagus with its complete obliteration at three spots, one at the level of the aortic arch, the second about midway between the level of the aortic arch and that of the diaphragm, and the third at the level of the diaphragm. There was stasis of barium above the level of the constricted segments. (Vide Fig).

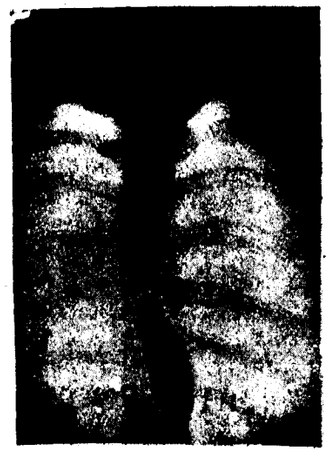

Fig.—Showing multiple spasms in the lower part of the oesophagus, after Barium Swallow.

Oesophagoscopy done under local analgesia showed no difficulty in passing down the instrument at the upper end of the gullet Down below the level of the aortic arch it appeared to be in spasm. A bougie was negotiated through the lower end. There was noticed no organic stenosis, ulcer or newgrowth.

The next morning there was a sudden shooting up of temperature with signs of congestion of the base of left lung. It resolved with a course of injections of solusepatasine. He was unwilling for any further stay in the hospital and had to be discharged with his original complaint unrelieved.

Ever since, the diagnosis in this case remained uncertain. It did not appear to be a case of dysphagia of purely functional type, for the reason that in functional dysphagia the difficulty lies either in the first or the second stages of deglutition, whereas in this case it was clear from the history and radiological and endoscopic investigations that the disorder lay in the third stage.

Neither could it be a simple spasm of the lower end of the oesophagus. In this, as stated by Cochrane Shanks and Peter Kerly (1950) barium emulsion demonstrates a narrowing affecting a short segment of the oesophagus. There is also a picture given by them of a long irregular spasm at the lower end of the gullet simulating the appearance of early corkscrew condition. But in the case of this young man under report the spasm involved more than one segment, completely obliterating the lumen at each place. There were also no signs of local inflammation or ulceration or of a foreign body which could give rise to a spasm of reflex origin.

Could it be a case of cardiospasm ? In fact this was the first thing that had suggested itself before a radiograph was taken. Cochrane Shanks and Peter Kerly (1950) say that in the early stages of cardiospasm the barium picture may show not only a widening of the lumen but also a serrated appearance of the walls due to irregular tertiary contractions. But then the lumen is continuous and does not give rise to an appearance of complete obliteration of the lumen at several places as was demonstrated in the case now under consideration.

Ismay (1952) reported a case under the designation of 'painful spasm of oesophagus (corkscrew oesophagus)' Shienmel et Al (1949) said that this was a condition practically unknown outside the field of roentgenology. They further pointed out

that the subject was complicated by the use of many synonyms some of which were misleading such as reflex spasm, spastic pseudodiverticula, segmental spasm, pseudodiverticulosis, functional diverticula of the oesophagus and that all these terms presume a knowledge of its pathologic physiology which however was unknown. They favoured the retention of the designation of 'krauselung' or curling originally suggested by Schatzki.

In this condition the oesophagus presents in the barium picture irregular multiple contractions and dilatations created by multiple segmental spasms. The spasms do not necessarily encircle the oesophagus. They usually extend from the level of the aortic arch down to the level of the diaphragm. The lumen may be completely or partially occluded by the spasm. The spasms may be persistent or evanescent. There may be stasis.

This disorder is noticed usually in people above middle age but has been reported also in the second and third decades. The contractions are said to be more prominent in older patients. Males are more often affected than females. (Ismay 1952).

The condition may be entirely asymptomatic. The symptoms when present have been described as follows. Severe or moderate pain occurs in the chest during swallowing. There is a progressive dysphagia which may become complete. There may be postprandial regurgitation. When pain occurs its severity may be parallel to the degree of spasm. Symptoms may be present for many years. (Ismay 1952).

In the case here under report now, the patient is a young man aged about 18 years. It is true that the curling of oesophagus occurs usually after middle age. But cases have been reported, it was said, in the second and third decades also. The age and sex of this patient are therefore not against a diagnosis of a painful spasm of the type of 'corkscrew oesophagus'. It is true that the radiological picture is not typical. But it might be that in this case the spasms completely encircled the gullet, obliterated the lumen and gave rise to the segmented appearance seen in the picture. There was pain in the chest, the dysphagia was progressive and was of nearly a year's duration. His nutrition was definitely affected. The food was also regurgitated at times. These are all symptoms definitely in favour of such a diagnosis being made.

The pathologic physiology is not yet known as has been remarked by Ismay (1952) and Shienmel et-Al (1949). It has been variously attributed to reflex spasm of the oesophagus, fibrous scarifying mediastinitis, paraoesophageal adhesions and to have been associated with duodenal ulcer, traction oesophageal divertcula, achalasia of the cardia and carcinoma of the oesophagus.

The hypothesis of an imbalance of the neuromuscular mechanism of the oesophagus put forward by Carlston and later by Techendorf has been accepted as the most likely explanation by Ismay (1952). Johnston (1946) thinks that this imbalance is combined with a suppression of the secondary waves. Sheinmel et-Al (1940) say that their findings support the belief that curling is due to segmental spasms. Ismay (1952) says further that the neuromuscular incoordination is secondary to degeneration of the autonomic plexus in the wall of the lower oesophagus. The degeneration itself may be due to impairment of blood-supply on account of arteriosclerosis; an analogous condition is 'mesenteric angina'. If this disorder is due to arteriosclerosis, then it would account for its tendancy to occur in elderly people. But this hypothesis is inadequate, however, to explain its incidence in the young.

Sheinmel et-Al made a study of the effects of various antispasmodic drugs to ascertain whether or not pain and curling could be eliminated. Their conclusions are as follows. Atropine and belladonna may reduce the extent of curling in some and abolish it in others. This finding they say, differs from that of Techendorf and Penner who reported complete disappearance of the curling. Amyl nitrite inhalation completely eliminates the curling but it recurs as soon as the effects of the drug wear off. Benzedrine also completely abolished the curling but its effect is more lasting than from amyl nitrite inhalation.

Ismay (1952) found that atropine sulphate 1 mgm. three times a day brought symptomatic relief and screening showed that the spasms were less prominent and less frequent. When atropine was withheld the symptoms returned in full force and the contractions were seen to become more frequent.

Amyl nitrite did not reduce the frequency of the contractions and did not relieve the symptoms. Pentamethonium bromide 0.75g by mouth gave relief within five minutes and the effect lasted for 30 minutes. The relief was more complete than with atropine.

As regards the action of these drugs, Ismay (1952) observes that atropine probably relieves the spasm by inhibiting the vagi and by its action on smooth muscle. Pentamethonium bromide probably acts by exerting a ganglion blocking effect and the question arises whether it produces the effect locally. Amyl nitrite when it gives relief must do so by causing relaxation of smooth muscle.

The patient in the case under report here did not remain in the hospital for further observation or study of the effect of any of the antispasmodic drugs.

SUMMARY

A case is reported of 'painful spasm of oesophagus' which in many respects closely resembles the condition described under the designations of 'corkscrew oesophagus' 'and curling of the oesophagus'

Its pathology, symptoms and treatment are briefly reviewed.

I would like to express my grateful thanks to Dr. S. Venkateswarlu, M.B.B.S., D.M.R.T., (Lon.), Medical officer, Department of Radiology, King George Hospital, Visakhapatnam, for some of the references and valuable suggestions in preparing this paper. I am deeply indebted to him for the radiographic picture. I am also very grateful to Dr. S. N. Gantayat, M.B.B.S., D.O., the Superintendent of the K. G. Hospital for permitting the use of the hospital records.

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Tonsilectomy

BY

A. F. DESMOND, C.M.C. Hospital, Vellore.

It may appear presumptious of me to write on the subject of tonsilectomy, but I hope that what I have to say will be useful to some, as I do not intend discussing the technique of the operation but some of the other aspects of the procedure. Tonsilectomy is the most frequently performed operations in the world and the technique has been more or less perfected. The position of the patient may vary, the instruments may differ slightly but, otherwise, the technique is nearly the same everywhere. Nevertheless certain aspects of the operation are still a problem and we have been able to improve on some of them.

Anaesthesia.—As a routine we now use endotracheal anaesthesia, using a Magills oro-tracheal tube, for all cases over the age of ten years, and for most cases under that age. To begin with, we used a naso-tracheal tube; this undoubtedly gets less in the way, but it has to be removed before removing the adenoids if the adenoidectomy is to be done satisfactorily. This frequently makes the patient gag and the rest of the operation is not performed under the satisfactory conditions of endotracheal anaesthesia. On the other hand with an oro-tracheal tube the operation is a little more difficult to begin with, but, one soon gets used to it. It is necessary to change the tube to the opposite side after one tonsil has been removed. To obviate this and to keep the tube as much as possible out of the way we have removed the anaesthetic tube from the tongue depressor of the Davis Gag, and fixed two clips on the blade which keep the Magills tube in the midline against the tongue depressor and out of the way. (Fig. 1). The operating space is undoubtedly less but one soon gets used to it. The advantages of endotracheal anaesthesia are many. The anaesthesia is smooth, it need not be so deep; there is no danger of the airway getting obstructed; and the trachea can always be sucked out after the operation. We have been using endotracheal anaesthesia for nearly three years and have had no laryngeal complications following tonsilectomy.

Gag Holders.—There are several types of jack available to hold the Davis Gag in position. I have never seen any in use but the type which rests on the chest is felt to be unsatisfactory. To have the gag held by a house surgeon or nurse is the most common practice, but it is not really satisfactory, neither to the holder nor to the anaesthetist. It needs a trained person, and even a trained person's arm tires. We have made a very simple device which holds the gag in place very effectively and maintains a steady pressure. It is illustrated in Fig. 2. Fig. 3 shows the gag holder in place. (Fig. 2) is a slight modification; the original is seen in (Fig. 3). The gag holder is made of nickel-plated galvanised iron rod, a $\frac{1}{4}$ inch in diameter, bent as in Fig. 2. A single size is suitable for all ages but we now have two sizes, the larger is an inch wider at the base and an inch higher. It is a device that anyone can make and use and is entirely satisfactory. We have been using it for nearly a year now.

A foot switch attached to the suction apparatus makes the surgeon independent of another to switch the suction on and off. The footswitch can be controlled by either the surgeon or the assisting nurse. We have found this addition most satisfactory.

In an attempt to make the operation bloodless, I experimented on a series of cases by injecting 1% procaine with Adrenaline around the tonsil. In some cases the operation was practically bloodless, in others there was a fair amount of bleeding. In some cases there was no bleeding on one side and some bleeding on the other. In view of the fact that the amount of blood lost varies from a negligible amount to several ounces without the haemostatic injection it was difficult to estimate the value of the procedure, and so it was given up as a routine. It might be of value in a case where it was essential that blood-loss be kept at a minimum.

Post-operative pain.—Anyone who has had a tonsilectomy will be able to recall the severe pain, especially on swallowing during the first two or three days after operation. The first reports of Efocaine, a long acting local anaesthetic which has been available in India for sometime, made me feel that here was answer to the problem of pain. The published reports now indicate that it is not so satisfactory; and some serious complications have been reported. We have used it on only a few cases injecting only one side, with varying results. In some cases

Fig. 1.

The tongue blade of the Davis Gag with clips attached.

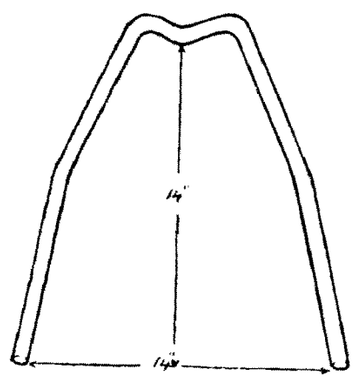

Fig. 2.

The Gag-holder.

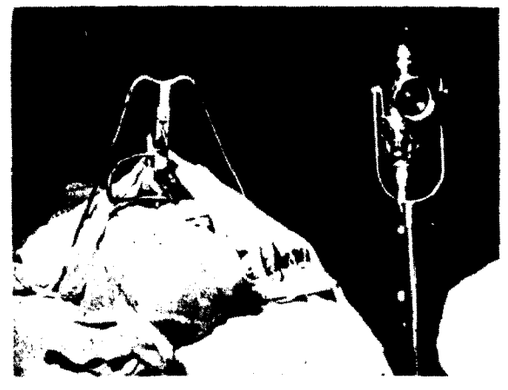

Fig. 3.

The Gag-holder etc. in position in the tonsilectomy set-up.

the patients complained of more pain on the injected side. In view of this, and the possible serious complications we are not using it at present.

Post-operative Penicillin.—Penicillin has become so cheap now, that the tendency is to use it as a routine after tonsilectomy. Routinely we keep patients for three days or more after the operation. I have observed quite a large number of patients with and without postoperative Penicillin. The temperature pattern is more or less the same whether Penicillin is administered or not. Most cases get a rise in temperature lasting for a few days, which is entirely uninfluenced by the administration of Penicillin. Penicillin therefore, does not seem to be of value as a routine. Besides, if penicillin is administered the patient has to put up with the pain of the injection along with the pain of the operation.

Summary.—Anaesthesia in tonsilectomy and a new Gag Holder have been described; and some personal observations on the other aspects of tonsilectomy have been made.

Association Notes

The Seventh Annual Conference of Association of Otolaryngologists of India was held at Amritsar from 23 Dec. to 26 Dec. 1954.

WELCOME ADDRESS

By Dr. TULSI DAS, Chairman, Reception Committee.

President, Members of Association of Otolaryngologists of India, Ladies and Gentlemen,

It is my very great privilege to extend to you the heartiest welcome on behalf of the citizens of Amritsar and Reception Committee of the 7th Annual Conference of the Association of Otolaryngologists of India in particular, to this historic city of Golden Temple—the world renowned shrine to which people come from all over the world to pay their homage.

The Punjab is the cradle of civilization round about the Indus valley as revealed by the excavations at Mohenjo-Daro, but the Punjab of today is slowly recovering from the after effects of the bloodiest chapter in the history of partition of India. Those who witnessed the tragic happenings will bear testimony to the fact that it was the darkest period in human civilization. Even the saints resorted to the cult of the sword perhaps subconsciously realising that in the ultimate analysis man is the greatest enemy of man. We are now only 17 miles from the Indo-Pak border which is not a natural line of cleavage but a rambling zig zag line offering no protection to the adjoining neighbouring states. The only safety is the human relationship.

I would crave your indulgence if we fail to live up to the greatest traditions of hospitality set up by our more fortunate predecessors. I assure you that we shall spare no efforts to make your stay here as comfortable as possible. There are no hotels here like the Taj Mahal, Conemara, Ambassador, and Great Eastern. Our own hamlets shall take their place and the warmth of our hearts shall minimise the rigors of the extreme cold of the month. Our hospital also lacks the external grandeur but I may point out that the wealth of clinical material makes up for the apparent lack. The newly built hostel is perhaps the only modern building and luckily for us all will serve as your place of accommodation. It is not yet fully equipped and lacks the modern facilities of air conditioning and central heating. I am sure you will enjoy the simple and austere setting after a luxurious life for years in the great cities of India. I fully realized my limitation when I extended to you this invitation on behalf of the Punjab but it was the warmth of hearts which emboldened me to request you to accept SUDAMA'S fare.

We are passing through a period of great scientific achievements and the people in the West are moving ahead at a terrific speed and unless we gird up loins and roll up our sleeves, we shall be left behind as a second

Dr. TULSI DAS,
President 1954—1955.

Dr. VENKATA RAO,
President 1953 1954.

rate nation. India led the world in creative thought for ages and I am sure with grit and determination we shall once again hold a position of privilege. The finances of our state are limited, equipments are not forthcoming skeleton staffs are provided in the hospitals and the state authorities feel that if the patient gets his treatment the function of a hospital is served. May I bring to their notice with folded hands that the real function of a teaching hospital lies in the utilization of this wealth of clinical material to the advancement of science. This is, however, impossible without a proper registration, record and research. Unfortunately in our subcontinent very meagre facilities exist for a real research partly because of the lack of traditions and defect in teaching and partly because of the lack of proper personnel and equipment required for a higher type of research both basic and clinical. We in our state have sent in a requisition for this and we are confident that the authorities will appreciate the urgency of the problem and accede to our request.

Even a casual study of Susrata or Charaka will convince you that India could claim priority in the advance of medical science in the remote past. Thanks to the archeologists, the research workers are gradually conceding to India the pride of place which she so richly deserved and which was not acknowledged for such a long time due to lack of appreciation by the Western world which leaned mainly on Greek and Arabic medicine and failed to trace the living links between Egyptian, Greek Arabic, Latin and Indian medicine. Five or six thousand years ago, a great civilization flourished in the Punjab and Sind (Indus Basin) and was closely linked with the civilizations round about Tigris, Euphrates and the Nile. The excavations at Harappa and Mohenjo-Daro have opened our eyes to that period of life when the sanitary arrangements in the houses and public places were far superior to those of the so called modern towns. Most of the houses were pukka and commodious—72 yards by 90 yards—with well laid out sewerage system, baths, etc. Susrata definitely lived at least 200 to 400 years before the great Hippocratis and the details of operations described by him are revealing of the great advances in surgery made by Indians. For each operation its indications, contraindications, pre-operative treatment steps of the operation, complications on the table, post-operative treatment and complications are all given in substantial details. Even prognosis of the operation is visualized. This well-developed scientific era could only be achieved if there was a steady progress and research for at least a couple of centuries before. In Sanskrit the word for medical science is Ayurveda i.e. science of life. Unfortunately after the Budhist period 2500 years ago this science received a set back although a few men appeared here and there on the horizon of this subcontinent but no further contribution was made to this science especially surgery. From India this medical knowledge was taken up by the Egyptians and from Egypt it travelled to Greeks and from Greeks to Arabs and from Arabs to the Latin countries, none adding a grain to the knowledge of surgery, which India had taken to great heights in the hoary past, till 13th to 14th century A. D. The Indians were doing Tonsillectomy, Tracheotomy, Rhinoplasty, Cataract, Pterygium, Entropion, Gastro-intestinal anastomosis, Trephine of the skull and Obstetric operations, etc. etc. Their contributions to Ear, Nose and Throat surgery were not mean and we are grateful to them. How could you believe a science to remain a science if research is denied to it for 2500 years. This is the present state of Ayurveda and if it is to be revived,

it must adapt itself to the modern experimental methods of study. Infant welfare, hygiene, sanitation and nutrition were the three facets of the science and art of medicine which received greatest attention and we are happy that the emphasis is again shifting to these. The present methods of experimental research need adoption in this country on a large scale to retrieve not only our old glory but at least to march abreast with the modern workers in the medical profession in the West. I understand individual efforts are being made at all places by zealous workers but unless a research machinery is set up to coordinate such laudable efforts, no advance will be possible. The present Indian Council of Medical Research receives a miserable pittance of a few lacs from the Centre and is asked to compete with the research workers of the West. This is to say the least, not understandable in the India of Nehru's dream who has lost no time in setting up palatial buildings for eleven research laboratories. At least a couple of crores should be set apart for annual medical research as medicine today can promise positive health to the nation. It is as important as grow-more food campaign and perhaps more. A healthier man will definitely be an asset to the nation as he will need less for his upkeep and will earn more for the nation. This aspect of research in medicine cannot be overemphasized. I am divulging no secret if I tell you that the Union Health Minister stated that the Central Health Department is getting at least rupees six crores for research during the next five year plan.

It is high time we build a central post-graduate institute with best research facilities at Delhi to attract the top talent of the country possessed of a missionary zeal and scientific flare. Time is gone when cures could be sold. We must now produce a healthy vigorous nation which could meet the challenge of microbes of all types. We must eliminate disease and not wait for a favourable crop of the disease to reap our harvest. E. N. T. is a speciality which fought valiantly to achieve the present place of vantage but latterly the Medical Council of India while upgrading other minor specialities, has ruthlessly downgraded this important speciality consisting of three separate heads combined into one. May I remind them that E. N. T. speciality takes special cognizance of infants and children and any speciality dealing with that period of life must receive a kindly treatment. It can keep our children healthy, strong and useful members of the society. No time should be lost in conveying our wishes to the Government through the Medical Council of India that this speciality must maintain its old position. We must preserve all the senses of the child before he can derive the fullest advantage of the opportunities afforded in a free country. A mild neglect of the ear, nose and throat will result in a partially deaf child who will be a handicap to the nation. So far no facilities exist for rehabilitation of the partially deaf children. I am glad to point out that the Prime Minister of India has vouchsafed equal opportunities to all talent in the country. This is only possible if all children are provided with equal opportunities for the quality and quantity of medical and educational aid.

Gentlemen, I feel, I have taken too much of your valuable time but before I sit down I must convey to you our sincere feelings of gratitude for the honour you have done to the Punjab by coming in large numbers to this place to take part in the scientific deliberations and to promote the advancement of science. We are deeply indebted to Shree C. P. N. Singh the Governor of the Punjab, who promptly responded to our fervent appeal to

inaugurate this conference but due to the visit of Marshal Tito to the Punjab he had to receive the honoured guest and thus we are deprived of his wise counsel. Shree Jagat Narain Jee our Health Minister has laid us under a deep debt of gratitude by accepting our invitation to inaugurate the conference as he had also to receive the revered guest. I realise we have snatched him from a more pleasant job but I can assure him that he has won a place in our hearts by honouring us with his presence today. We shall not detain him long as we have no desire to stand between him and Marshal Tito.

On behalf of all of you I convey our grateful thanks to our respected Vice-Chancellor, Dewan Anand Kumar, for sparing his most precious time to grace this occasion and to readily agree to open the Scientific Session.

I must also thank the members of the reception committee who have spared no efforts to provide for the distinguished guests whatever living places they could afford to lay their hands on. In the end I am so extremely grateful to the citizens of Amritsar who have always shared with us our joy and sorrows alike.

I now request our Health Minister Shree Jagat Narain Jee to inaugurate the conference.

OPENING ADDRESS

Seventh Annual Conference held at Amritsar, on 24th December 1954

By Shri JAGAT NARAIN JEE, Health Minister, Punjab.

Dr. Tulsi Das, Mr. President, Ladies and Gentlemen,

It gives me great pleasure to welcome you delegates to the 7th Annual Conference of the Association of Otolaryngologists of India in this historic city of Amritsar. The very fact that you have taken the trouble of coming from all parts of India to participate in the deliberations over here shows your keen interest in professional undertakings which with group work and group thinking may evolve plans and procedure for doing greatest good to the largest number of people in the shortest time possible. This is essentially a principle of democratic pattern of living which has been very rightly imbibed by scientific associations. It is, I presume not without significance that the 7th Annual Conference coincides with the seventh year of independence in this country.

I do not claim to be a specialist in the speciality which you will be discussing in your scientific sessions. But I can in all humility claim to understand the voice and needs of the people and convey the same to you so that during your planning and recommendations you might consider the practical applicability of those principles to make health more meaningful and life richer to the people all over India.

Few will deny the need of continuous research in all fields of human misery and disease. But very often, in this country research and its results have remained confined to the fourwalls of research institutions and laboratories. This has naturally diminished the interest of State Government in giving high priority to a project which tends to be a scientific curiosity, like a star in the horizon which is beautiful but not productive. To the State, the people's welfare comes first. If a scientific organization can convince

the State and the Central Government of the utility of the plans which they intend to undertake to bring prosperity and health to the people, the Governments will be very willing to study the projects for making a beginning. Very often, I have heard physicians say that in to-day's age we do not interpret disease in terms of germs, susceptibility and its consequence alone. It is the environments, physical, social and mental, which bear a great influence on the propagation of disease. As research advances and human science becomes more compartmentalized, it is essential that this care of the whole individual in his environments is not forgotten by the specialists. The State Government has already moved ahead with the times and has taken steps of modernizing the existing district hospitals, to provide for services which never existed before. One such service which is being given a place in district hospitals is the provision of Ear, Nose, Throat Specialists. Already we have our specialists working at Karnal and Moga and the Government contemplates to provide one in each modernized district hospital. Even at the teaching institution at Amritsar, efforts are being made to separate Ear, Nose, Throat from Eyes. Due to the efforts of the workers specially Dr. Tulsi Das, the section of Eye and Ear, Nose, Throat has grown to become giant-sized twins which need to be separated for providing adequate care of both.

With increase in services in the field of Ear, Nose and Throat, there is a natural likelihood of more cases coming to light than ever before. As it is, the incidence of these trouble is fairly high, partly due to ignorance and partly due to the prevailing feeling amongst the people that these are all minor ailments. The Specialists in this field are rendering valuable service to the vulnerable groups of infants and children and I sincerely hope that the Association will frame policies and programmes for diminishing the incidence of these ailments connected with Ear, Nose, Throat in a more organized and scientific manner.

The Government of Punjab has under its consideration an organized, well-integrated school health service scheme which it is hoped will be put in practice during the next five years with the help available from the Central Government. But the scheme can only succeed when all take part in helping to strengthen the scheme for providing better health and care to the future citizens of India. I sincerely hope that the people, the parents and the teachers will do their bit to provide adequate health services to the children. But one of the greatest contributions that can be made to the scheme is by professional organizations such as the one I am addressing to-day. We often read in papers of "Shramdan" as a means which is playing a significant role in the development works all over India. The technical services can also move with the times by providing at least free medical service to schools in their areas, for certain hours during the week. I am told that this practice is not unknown to some of the Western countries where physicians' associations do undertake to provide voluntary service to the needy community with meager resources. I am confident the Conference will take into consideration the present apathy towards the prevalence of the so-called minor ailments which are not minor so far as the consequent disability is concerned.

Every day as knowledge and facilities increase, we become more and more aware of the disability caused to hundreds of children all over the

State and that way all over India. The large presence of the dumb, deaf and the mute is a standing challenge to the work of the Association of Otolaryngologists. We need homes for the disabled children. With scientific knowledge as available to-day, we are told that even disabled children can develop to contribute their share in the economy and progress of the State. I am sure the conference will suggest ways and means of establishing such an institution. It naturally takes us to the question of hearing aids. With the increase in health activities all over India, the result is bound to show a cumulative effect in the increase in the span of life. Already the statistical calculations show an increase of about 2.9 years, in the expectancy of life in this country. It also means that there will be a larger number of persons in older age groups. We therefore, need provision to lessen dis-advantages due to deafness both in the younger and older age groups in a greater proportion. I am told the present hearing aids available in this country are beyond the reach of an average middle class man. The question needs further investigation since the discovery of disability without means available to remove the same can only lead to greater frustration. How can these hearing aids be made available to all needy persons is a question worth consideration by this association.

The strength of countries with limited economies and vast problems lies in mustering rssources with greater emphasis on prevention of illness along with the treatment of disease. Health is not a purchasable commodity but a result of continuous efforts by the State, voluntary agencies, members of the community and professional organizations. Since the results of research are mostly known to the men in the field, it is left to professional bodies such as the one over here to provide leadership to the various agencies for organizing a well integrated programme.

Lastly, I would like to mention a word about the rural medical service in the Punjab. Under the present Five Year Plan the emphasis was laid on improvement of medical care in rural areas. Under the next Five Year Plan we intend to organize more effective and better services from health centres all over the Punjab. In order to keep rural medical officers abreast of the present technical knowledge, the Government shall have to arrange reorientation courses for the medical officers in the districts and thus lead to improvement in the quality of medical work in rural areas both on the curative and the preventive side.

I have no desire to keep this Conference away from its scientific agenda. My desire in coming over here was to benefit from the rich experience of the delegates who have assembled over here. Let me assure you ladies and gentlemen that your deliberations will be given careful study by the departments concerned. We are, at this stage preparing our blue prints of next Five Year Plan. We all know the limitations and the potentialities of work on welfare schemes after having been associated with the current five years of community activity. The recommendations that you will be making to-day may prove very valuable to the planners all over India.

I wish you all success in the task that lies ahead of you.

PRESIDENTIAL ADDRESS

By R. VENKAT RAO, B.SC., M.B.B.S., D.L.O. (Lond.)

Your Excellency the Governor of the Punjab, Chairman and members of the Reception Committee, Ladies and Gentlemen,

The Association of Otolaryngologists of India is very much indebted to the medical fraternity of the Punjab for inviting the Seventh Annual Conference to Amritsar.

The City of Amritsar evokes in us all a sense of veneration to the famous Golden Temple, and respectful homage to the memory of the gallant martyrs of Jallianwala Bagh. I am sure I express these sincere feelings on behalf of all my fellow delegates.

We are highly honoured by the gracious presence of His Excellency the Governor, who has found time to adorn this assembly and open its deliberations.

I have been commanded by my colleagues in the association to occupy the presidential chair this year; I am fully aware of the fact that I lack the experience and wisdom of my illustrious predecessors. However, I deem it as the highest honour, which a member of this association can aspire for; and with your co-operation and advice I will try my utmost to serve you.

Our country is endeavouring to become a welfare state; she has planned, is planning, and will continue to plan to provide medical care for her vast, growing population, distributed widely in this sub-continent. Our great Prime Minister, Shri Jawaharlal Nehru has said that "We are living during great and exciting times"; great, because the foundations of all that concerns the future well-being are laid, and exciting, because every one of us is to share the enthusiasm and to strive whole-heartedly in that direction. It is but proper that this Association, which has in its folds most of the Otolaryngologists of India, considers the future of this speciality in relation to "the shape of things to come". The changes and plans may not immediately affect my senior colleagues, but the younger members, and the members-to-be in future will certainly be influenced by them.

Present Trends.—The distribution of our population is mostly rural, and the remaining urban. The urban population which is a small part, has better medical facilities today, in the form of hospitals, nursing homes, and private practitioners. Within a year or two, the Employees' Insurance Scheme will be in force in many of the industrial cities. The Contributory Health Service Scheme is being tried in the metropolis. I am sure, the success of these two schemes will encourage the country to adopt similar measures in more provincial capitals and industrial areas. Some of the provinces are providing treatment at Government cost to all their employees.

Today, we are in the transitional stage, when the citizen of this democratic republic, is beginning to assume that it is the sole responsibility of the state to protect his health. The rich Rajas, Nawabs, Zamindars and businessmen have become scarce, and the remaining few have been contributing directly or indirectly in the task of building our welfare state.

Irrespective of financial means, a patient seeks the nearest State hospital; the chances of a decent private practice are therefore, rapidly dwindling. The financial implications and the strain to the State, caused by "Free treatment for all" in the State Hospitals, need close scrutiny and evaluation, lest those having influence and money get free treatment to the detriment of the needy poor.

Ultimate Goal.—Taxation, direct or indirect and voluntary contribution, as Sampattidan, will be needed to maintain the ideas of a welfare State, wherein a person will demand proper medical aid. This ambitious plan to provide medical care for the entire population may resemble the National Health Scheme of the United Kingdom, with the necessary modifications peculiar to our needs. In short, "a socialised medical service", depending upon compulsory and voluntary health insurance, and state subsidy, will have to be finally evolved, after an early period of trial and error.

The Role of Otolaryngologist.—The Bhore Committee Report, a monumental and interesting document, has laid the foundations for implementing the plan; but it needs modification and elaboration of details as regards the role of specialists; I am concerned as an Otolaryngologist.

The health administration is rightly engaged today, in eradicating and controlling the serious evils of Malaria, Tuberculosis and Leprosy; measures are vigorously pursued to supply clean drinking water to prevent water-borne epidemics; better maternal and child welfare is the present aim of Social Workers also. The priority these measures deserve is justified by the rate of mortality involved. Within the near future the emphasis is bound to shift towards the basic factors of malnutrition and environmental hygiene.

But the lesser evils, like diseases of Ear, Nose and Throat, that are fairly rampant in our midst, require to be taken note of simultaneously by the public and the health authorities. The incidence of diseases of Ear, Nose and Throat is fairly common and high. Statistics from any medical institution, public or private, or a random sample survey of any average unit of the population, will prove that about 8 to 10 percent of the patients are suffering from these diseases; more children have active lesions. The mortality rate is not high, but the sufferer is left handicapped, more so when the organ of hearing is involved. Besides this number, there are the congenitally deaf children, and adults suffering from Otosclerosis and other diseases causing deafness. Since the inception of this association, these problems have been dwelt upon by my predecessors; but I feel that re-emphasising them is necessary till a satisfactory solution is found.

EXISTING CONDITIONS

(1) **Hospitals.**—Some of the big General Hospitals have a department of E. N. T.; the beds allotted to this speciality are proportionately insufficient; the equipment is very meagre. Even the teaching hospitals attached to Medical Colleges have very incomplete equipment. There is yet no special Hospital for E. N. T. though there are several Eye Hospitals.

(2) **Personnel.**—The membership of our association is nearly 200; assuming that there are a hundred more specialists, the total number is barely 300 in a country with a population of 350 millions. These specialists

are mostly concentrated in provincial capitals and big cities ; the competition for practice is very keen here ; and the junior members find it difficult to earn a decent living and get opportunities for doing good professional work. Perhaps this concentration in urban areas is partly due to the availability of ancillary help in the form of X-Ray, Laboratory and Anaesthesia facilities and partly to the ordinary amenities necessary for modern living.

Changes in Rural Life.—With the advent of Community Projects and National Extension Scheme the picture of rural life and economy is rapidly changing. The countrywide Social Service organisation, and drive towards literacy of the adult population are making people " Health-conscious ". The tempo of these changes will get accelerated in the second Five Year Plan and the National Health Scheme will have to cover the entire country, ere long, if we are to reach " the Socialistic order of economy and life ", without any upheaval.

Scope for Work.—In this scheme, one Otolaryngologist, on a modest scale, will be required to care for a population of 5 lakhs. He has necessarily to form a part of the team manning a medical centre designed to cater medical aid on modern lines. His unit should be provided with 15 to 20 beds, and proper equipment. This unit, situated in rural area, will relieve the congestion in the E. N. T. department of the Provincial Hospital and avoid the inconvenience of long distance travel and delay to the patient, a marked feature to-day. About 700 Otolaryngologists will be needed to work this scheme.

In the teaching hospitals of the Medical Colleges, the E. N. T. departments should be further developed, so that their main purposes are teaching of undergraduates and post-graduates, performance of more intricate surgery, and therapy of malignant conditions on modern lines. A section for Audiology and speech training should be incorporated with it.

There should be 60 beds under the care of two senior specialists assisted by two junior specialists, academically inclined, and capable of teaching. A total of 30 institutions of this type may be needed for the entire country. But, if the finances are limited, a regional centre serving three or four provinces should be started at the earlier stage.

The two types of institutions described above will need 800 Otolaryngologists. Within a period of 10 years from now about 600 post-graduates have to be trained as Otolaryngologists.

Training of Specialists.—Every Indian student going abroad for post-graduate qualification is liable to incur an expenditure of Rs. 20,000 during a minimum period of two years. The psychological and environmental background, of his training there, is very different from that existing in our country ; when he returns here to work the problems to be faced are entirely diverse and more difficult ; and they in turn breed in him a feeling of frustration, due to lack of proper opportunities for work and reasonable remuneration in return for the time and money spent by him.

A competent body composed of representatives of the Government, Universities, and medical associations should deliberate over the future of

the post-graduate medical education, devise ways and means, and implement them soon. The following points need to be considered in remodelling the post-graduate education :—

(1) Facilities for teaching and its practical application should be equal to the best international standard; more akin to the Canadian and American type.

(2) Full-time teachers on good salaries are better than part-time teachers who have to attend to private practice.

Our Universities should not only become examining bodies, but they must provide training facilities first.

(3) Instead of sending students abroad and incurring enormous drain of precious foreign currency, every year one or two eminent teachers from advanced countries be invited to spend one year, atleast, in our country and train our students.

The Indian student is intelligent and receptive ; our country abounds in enormous clinical material ; what we need is an organised effort to train him properly.

The Indian Medical Institute.—The birth of this institution is imminent in the near future. I hope the main purpose will be (a) training of teachers for post-graduate education, and (b) research and experimental surgery.

I hope it will not fail to fulfil these expectations.

Propaganda.—The Press and Platform incessantly state that a modern allopathic doctor, and particularly a specialist, is loath to work in rural parts. I request the same agencies to emphasise the necessity of creating opportunities, proper environment, and adequate armamentarium in the rural areas. Things are changing rapidly and taking shape, and I hope, we will not hear this accusation before long.

It is necessary that a welfare state responsible for the health of every citizen, should plan the scope of work and the training of the personnel needed. The entire personnel should be fruitfully employed and entrusted with definite field of work ; and adequate remuneration guaranteed. When these conditions of work and wages are created, we, Otolaryngologists of India, will not lag behind the other advanced countries to fulfil all that is expected of us.

I thank you, ladies and gentlemen, for giving me a patient hearing.

MESSAGES

Shri Chandresvar Prasad Narain Singh, Governor, Punjab (I).

I am sorry due to unavoidable circumstances, which required my presence elsewhere, it has not been possible for me to inaugurate the Seventh Annual Conference of the Association of Otolaryngologists of India which is being held on the 24th December, 1954, in the historic city of Amritsar. It is indeed a matter for great pride that this year Punjab has

the privilege of being selected as the venue of this important conference. I join Dr. Tulsi Das, the Chairman of the reception committee, in extending a most hearty welcome to you all, who despite your pressing and multifarious preoccupations have come from places far and near actuated solely by the urge for taking part in the Scientific deliberations of the conference with a view to promote its advancement for the benefit of suffering humanity. I am confident that large-hearted as you are you will not mind the inconvenience caused to you due to our inability to give you all the comforts which you are used to in your homes and like generous guests look over our shortcomings as hosts.

In the glorious days of the remote past, as you are aware, our doctors were the pioneers in the advancement of medical science. This knowledge travelled from here to Egypt and from there to the other countries of the West. I understand the contribution of our doctors of those days to the medical knowledge relating to the ear, nose and throat was very substantial. The ear, nose and throat have been placed by the Divine Hand uppermost near the brain in the human body. The ailments connected with these organs should, therefore, deserve priority in treatment. A healthy body possesses a healthy mind and these are the basic and most important possessions of the individuals of any great nation. The duty devolves, therefore, on your noble profession is by no means simple but is quite onerous. You will have to devise methods for the improvement of medical science, which, unfortunately, due to alien rule remained undeveloped in this country. It is now for you to restore this science to its glorious heights it attained in the past in this country and to again lead the world as before. I wish the deliberations of your conference all success.

Dr. Jivraj N. Mehta, Finance Minister, Bombay Government.

The development of such specialities is a great need for the proper development of medical education, medical research and medical relief. I wish God speed to the efforts of your Association in these regards.

Rajkumari Amrit Kaur, Minister for Health, India.

I wish to send my best wishes on the occasion of the 7th Annual Conference of the Association of Otolaryngologists of India, to be held in the last week of December, 1954, at Amritsar. This special branch of Medical Science has only come into prominence in India during recent years. The importance of the speciality cannot be gain said. I hope the activities of the Association will be directed not only to popularise the speciality amongst the medical profession in the country but also to enhance the standard of its practice. There is a wide field in our country for making a special contribution to the advancement of knowledge in this particular field.

Colonel Amir Chand, I.M.S. (Retd.)

The medical science is advancing at an incredibly fast pace. The days are gone when an individual could hope to practise all branches of this science with confidence and efficiency. Such rapid advance was bound to lead to specialisation. It is gratifying to know that the votaries of specialisation in otolaryngology are meeting this year at Amritsar at the time of the 7th Annual Conference of the Association of Otolaryngologists of India.

We are much behind the Western countries in the matter of extending medical relief to the suffering humanity and this holds good as much in the realm of otolaryngology as in that of other specialities. I am sure the Association is alive to this short-coming and that its efforts at this Conference will be a definite step in the right direction to improve matters as best and as expeditiously as possible.

I send the Association my best wishes for the success of the Conference.

Dr. B. Pattabhi Sitaramayya, Governor, Madhya Pradesh.

The advance of knowledge in sciences is a cumulative progress attained by each component factor thereof. While in medicine there are diseases of the various systems and over and above them disorders of the five senses and sensations, the latter offer courses of specialization which again leads to emphasis on particular organs and senses. It is thus that the diseases of the eye and the operations contrived in connection therewith and likewise the diseases of the ear, of the throat and of the nose demand specialization. It is in this process of dissecting and anatomizing knowledge that the Laryngologist comes in. In my time, that is, 50 years ago when I did my medical course, the ear specialists, the throat specialists and the Laryngologists were there but not much of tangible progress and cure was associated with the medical or surgical work. Such a kind of work and such achievements have advanced very far in the course of the last half a century. It may be that another half a century hence, i.e., at the commencement of the next century, our successors will think of their forebears of this generation as a band of men who were satisfied with elementary progress in these specialized sciences. It is thus that knowledge broadens from precedent to precedent and you, who are engaged in the Conference at the present moment, become active factors in the promotion of such knowledge. I wish you success.

Lieut-General D. R. Thapar.

It gives me great pleasure to send my greetings and a message for the 7th Annual Conference of the Association of Otolaryngologists of India which is being held at Amritsar. This thought takes me back to the days before the First World War when specialism was in its infancy in England and perhaps only in the stage of wishful thinking as far as our country was concerned. Wars, inspite of their horrors of destruction, are often a blessing in disguise for the development and advancement of Science. In that War, 40 years ago, we started with Surgeons who were called upon to cut, repair or remove various diseased organs from different parts of the body. Some of them restricted their field of activity to particular regions and became the fore-runners of regional specialists. Slowly and gradually we had specialists practising their art in teaching institutions and in a few large cities in India, but in those days Laryngology meant more or less a wholesale removal of tonsils and adenoids. It was not until the Second World War, when millions of men under Arms from various nations were collected in India, that the necessity of skilled Surgeons with specialised technique was actually felt and measures had to be adopted to import this rare commodity from all sources. This was the real impetus to specialisation in India and we produced this class of men in hundreds if not in thousands.

When the Kunzru Committee in 1946 was considering the Indianisation of the Medical Services many a witness gave his evidence with his tongue in his cheek fearing that a sudden withdrawal of British Specialists may seriously deplete our teams of specialists and thereby lower the medical standards in India. It goes to our credit and glory of the profession that when the British finally and suddenly left the country in August 47 our young specialists and those intending to be rose to the occasion and within a period of 5 years filled every gap so creditably that today we are second to none in offering the latest, most efficient and highly skilled medical aid to those who need it. Gone are the days when every serious or complicated case had to be rushed abroad; today such trips are merely an excuse for the wealthy and the non-believing die-herds with white complexes to go abroad for reasons, in reality, of pleasure or subtle business facilities for importing foreign goods or exporting their wares.

India has made many big strides in various fields but the outstanding one still remains the high class medical skill that has been made available in the country and that too achieved in the shortest period known in the medical histories of the Civilised nations. Laryngology has, at last, come into prominence it deserves and I wish the Conference all success.

Lieutenant General D. N. Chakravarti, Director-General, Armed Forces Medical Services.

It is my proud privilege to be able to send a message to a learned association of specialists like yours—May your efforts to enhance interest in the science of Otolaryngology be crowned with success.

Many a child in our country has lost chances of full growth both in body and mind due to lack of early recognition of minor defects in breathing passages. The task before you, therefore, is two fold: Primarily, to create consciousness amongst junior medical men of the importance of early diagnosis in otolaryngological disabilities to ensure timely consultations with a specialist. This, however, can only be achieved if they know their limitations in the treatment of these diseases. Secondly, to maintain a high standard of your efficiency as specialists in order to gain confidence of patients and medical practitioners alike.

Whatever may be the sphere of your activity I fervently pray that you may have courage and opportunity to fulfil your task in the spirit of a missionary.

Colonel Sir R. N. Chopra, K.T., C.I.E., M.D., Sc.D. (Cantab) F.R.C.P., etc., Drug Research Laboratory, Jammu-Tawi.

I have just returned from Europe after two months and have received your letter dated 11th December 54. Kindly convey to the Association of Otolaryngologists of India the best wishes of one of the oldest members of Medical Profession in this country, for a very successful session in Amritsar. Having just returned from Europe after seeing many great Medical Institutions, I am very happy to appreciate that the very important branch of Otolaryngology is making such rapid progress in India. I am sure your Association will see that the standard of Otolaryngological work here is second to none in the world. May God crown your efforts with success.

Sardar Gurdial Singh Dhillon, Speaker Punjab Legislative Assembly, Chandigarh.

I left Amritsar this morning and on reaching my residence I am in receipt of your invitation on behalf of the Chairman and Members of the Reception Committee of the Conference of All India Association of Ear, Nose and Throat Surgeons to the Inauguration Ceremony on the 24th of December.

I was at Amritsar from the 13th and had I received your invitati n there I would have certainly delayed my departure to Chandigarh for a day. Anyhow I wish your conference all success, specially when experts on diseases of nose, ear and throat are so badly needed by the State I feel that the State should give all possible help and encouragement to them.

Captain Dr. C. S. Patel, F.R.C.S. (Eng.), President, Medical Council of India.

I congratulate the Organizers of the 7th Annual Conference of Oto-Laryngologists which will be held at Amritsar this year.

Although since the advent of independence we have made rapid progress in all directions, including Medical research, I feel that we have still a longway to make up in order to come up to the standards of more advanced countries like the U.S.A. and U.K. I have no doubt that, if the present spirit is kept up, we shall very soon be in a position to hold our own against any other country in the field of Oto-Laryngology as well as in other fields of medicine, as I firmly believe that we are equally competent in intellectual capacity or in aptitude for research, to any other nation in the world. All that is required to give a fillip to progress in this direction is encouragement from the State and Conferences of this type which will help the best men in India in their respective specialities to come together, compare notes, discuss mutual problems and techniques and thus pave the way for further progress.

I again congratulate the Society of Oto-Laryngologists on their venture and trust that these annual Conferences will continue to be regular feature with renewed enthusiasm to which all medical men can look forward every year.

THE SCIENTIFIC SESSION OF THE CONFERENCE

was opened by Sri DEVAN ANAND KUMAR, Vice Chancellor, Punjab University.

Mr. Chairman, Sir, Members of the Association of Otolaryngology, Ladies and Gentlemen, I am grateful to you for the honour you have done me in asking me to inaugurate the Scientific Session of your Association. As you might be aware, I am opening this session in the place of a much more qualified man than myself the Hon'ble Health Minister of the Punjab whose learned address this morning we had the privilege of hearing in place of that of His Excellency, The Governor. I feel that in conformity with the trend of the times in regard to inaugural addresses you have selected in me a person who knows almost next to nothing about the subject which he is supposed to talk about. I shall, therefore, following

usual practice, confine myself to making such observations as I might venture to make before this highly specialised audience, in the capacity of a layman.

I am glad that you meet as a small body of experts to discuss the various aspects of your particular branch of medicine. This lends to your discussions a serious atmosphere and a sense of purpose to your deliberations which in much larger gatherings of general science has to a large extent, ceased to exist and where the very numbers tend to make of such meetings a social gathering where social functions dominate the entire arrangements at the cost of scientific discussions. It is only among small groups of persons genuinely interested in one particular field and thoroughly conversant with the technical language of one another that a constructive exchange of ideas can take place. It is only a small number of persons who, driven by a common purpose, can enrich one another's knowledge by a recital of their own experiments and can by discussion hammer out a co-ordinated programme of research.

Modern Scientific research is a team work. No longer is it possible for an individual scientist to exist without the active help of his colleagues. No longer can a Descartes or a Newton or a Pascal or a Faraday or a Galton work out a complete system in his own mind or in his laboratory. Even a fundamental thinker like Einstein has to draw upon a hundred sources and requires a thousand disciples to work out all the ramifications of the Theory of Relativity. Scientific research has long ago ceased to be a matter of a young boy looking at water boiling in a kettle and inventing the Watt steam engine or the random flirtation with various fields of science by a man of liberal scientific education who discovers some fundamental truths. No longer can a Luenwhoek, the Dutch Merchant, lay the foundation of the science af Microbiology by looking at his dentures through a stray arrangement of lenses and finding therein monsters stranger than those whom he had met in his voyages to the East Indies. No longer can the Sordid commercial gentlemen of the City form themselves into the Royal Society by spending a few leisure hours in weighing air for their own delectation, and thus causing the good king Charles to laugh at their antic disposition. The accumulated knowledge of the last five thousand years of civilisation is so much that a person who claims to make some addition to it must have spent the first thirty years of his life in merely learning what others have already done in his field. Only after that he may help in the development of his field by adding a jot, an iota, an infinitesimal amount of innovation. A scientist or a medical man who claims for himself a startling discovery or a cure—a remedy for arthritis or for cancer or tuberculosis is to be in the first instance suspected of an overstatement and in the next of taking undue credit for himself.

The specialist then cannot live in isolation. For his efficiency it is not merely necessary that he knows a bit more about his subject than others, but he must on the other hand know quite a lot about the other fields. Division of Labour which was an essential feature of the Industrial Revolution and which was responsible for the tremendous increase in productive power, it is now felt can be carried too far. In the Industrial sector it has reduced human beings to the level of automatons, in the scientific field it has led to ignorance of other allied branches of knowledge.

For a research worker or a practitioner of Ear, Nose, Throat surgery it is essential that he must basically be a good general surgeon and physician. Otherwise he will be as little use to the community as the Nose Specialist who sent away his patient with the words "Sorry, I specialise only in the left nostril". It is with this idea in mind that I would exhort you not to encourage over specialisation to the deteriment of a sound knowledge of other allied branches. The eye, the ear, the nose or the throat are parts of the human body, they cannot exist by themselves; they cannot go out of order without affecting other parts of the body. Other organs of the body when they are not functioning properly cannot but affect the efficiency of the ears, nose and throat. An E.N.T. specialist then must know and be able to treat conditions of general deterioration in the body as competently as any general physician before he can claim to know more about some special organ. Of course, this will slow down the tempo of specialised research; but then this loss will be more than compensated by the soundness of the basis of that research in which the knowledge of other branches is integrated. It is only then that the Otolaryngologists will be able to render true service to society. Of course, I take it, that the objective of the members of this Association is to serve the interests of humanity through the development of this branch of medicine, and not just mundane. That in your particular branch of medicine the present audience places the benefit to mankind above self-interest is apparent from the fact that you have organised yourself into an association of an academic nature instead of forming a Trade Union or a Chamber of Commerce.

In this spirit I ask you to partake of the academic fare which the Secretary has provided for us this afternoon and to ponder over the learned papers to be read out. May your deliberations be attended with success.

Amritsar, 24—12—54.

CHAIRMAN OF THE EDITORIAL BOARD'S REPORT FOR 1953—54

Mr. President and Colleagues,

During the year under report of the quarterly Indian Journal of Otolaryngology, the issues of December 1953, March, June and September 1954 were produced by our Editor Professor G. Satyanarayana.

The audited accounts for the year ending 30th September 1954 are before you. You will notice that the Editor and his Secretary have done well by collecting Rs. 4,635/- in advertisement charges against Rs. 2,290/- in the previous year. Our establishment charges have stayed at Rs. 20/- per month. Printing, paper and block charges have been Rs. 2,302-3-6 against Rs. 2,372-12-9; whereas the Central share of subscription has been Rs. 672/- against Rs. 660/- in the previous year. We started the year with a credit balance of Rs. 4,355-15-6 and we close it with Rs. 7,041-2-0. To get a better yield of interest we propose that about Rs. 3,000 be invested in Government Securities, as per Bombay Trust Acts and Charity Commissioners Rules, through our Bombay Head Office; leaving about Rs. 4,041 at the Journal Treasury.

Dr. C. Satyanarayana, Dr. L. Hiranandani and myself are chiefly instrumental in getting the advertisements. I would request you all to do your mite as you are all well known to the drug trade in your locality.

Just as we are grateful to Dr. L. Hiranandani for a large number of advertisements, so we are to Dr. R. P. Munshi of Bombay for the Extracts. I would request you all to send us short extracts of very recent articles so that a great variety is found, in addition to interesting case reports and original articles.

I thank Dr. P. V. Cherian, Chairman of the Madras Legislative Council to find time and help the Editor and myself in this heavy task of the Journal production. I thank you all for the cordial support you have given us in the discharge of our duties.

C. A. AMESUR.

Bombay, 14th December 1954.

HONORARY SECRETARY'S SEVENTH ANNUAL REPORT

During the year (1953—54) under report 2 ordinary, 2 Associate members joined and 10 ceased to be members, 1 under rule 9 (a) and rule 9 (c), thus leaving, 1 Honorary, 99 Ordinary, 23 Associate members in a total of 123.

For the first time, since 1947, the head office did not receive any donations. After sharing the subscriptions between Indian Journal of Otolaryngology and the branches, the head office assets are Rs. 7,807-10-9. Please induce your friends who are specialists in our line to join as Ordinary members.

The Journal audited accounts (1953—54) are also in your hands. This shows a credit balance of Rs. 7,041, for which we are grateful to Dr. P. V. Cherian, the Hon. Journal Treasurer, Dr. C. Satyanarayana, the Editor, and Dr. L. Hiranandani, who got us most of the advertisements.

I am pleased to inform you that the Bombay Government recognised our speciality in the Employees State Insurance Scheme and advertised for two posts as in the case of six other specialists. They however, have left out some very important ones, we hope they will soon be recognised too.

Without rail concession, as in the case of I.M.A., it is going to be very difficult for members to travel from one end of the country to other. Just as I am writing this report I learn from Dr. Dhukhan Ram that he has been able to get a small concession in Air Travel for the delegates from the Central Minister of Communications. For this we are grateful to the Government and Dr. Ram.

I thank you very much for the kind co-operation given to me from time to time. I also thank the Staff both at Bombay and Madras for their support during the year.

C. A. AMESUR.

Bombay, 14th December 1954.

GENERAL BODY MEETING

The minutes of the Seventh Annual General Body Meeting, held at the Medical College, Amritsar on 26th December 1954, under the Chairmanship of the President, Dr. R. V. Rao. The meeting was called at 9 a.m. and as the quorum of fifteen was not present by 9-15 a.m., the meeting stood adjourned and was held at 9-30 a.m. under rule 15(f).

RESOLUTIONS

1. The Honorary Secretary pointed that the minutes of the Sixth Annual General Meeting were published in Indian Journal of Otolaryngology in Vol. VI, No. 1, March 1954 and circulated to the members be taken as read, unless some one objects. Moved by Dr. G. Narayan and seconded by Dr. M. M. Nath. "Resolved that the minutes of the Sixth Annual General Meeting held at Hyderabad Deccan on 24th December 1953 be confirmed." Unanimously carried, and signed by the Chairman.

2. The following condolence resolution was moved from the Chair and carried unanimously, all members standing and observing silence for one minute. "Resolved that this Seventh Meeting of the General Body of the Association places on record, its deep sense of sorrow at the sad demise of Dr. S. G. Joshi, a Founder Member of the Association, a member of its Governing Body and a Joint Editor, and conveys its heart-felt sympathy to the members of the bereaved Family."

3. The Honorary Secretary, Dr. C. A. Amesur, then read his Seventh Annual report. Proposed by Dr. G. M. Taneja and seconded by Dr. P. B. Lal. "Resolved that the Seventh Annual Report (1953—54) of the Honorary Secretary be approved." Carried unanimously.

4. The Honorary Treasurer Dr. R. A. F. Cooper, showed his Audited accounts for the year 1953—54 showing a credit balance of Rs. 7,807-10-9, including investments at cost of Rs. 4,877. Moved by Dr. Om Prakash and seconded by Dr. S. Jain. "Resolved that the Seventh Annual Report of the Honorary Treasurer and the Audited Accounts for the year 1953—54 be approved." Carried unanimously.

5. The Honorary Chairman of the Editorial Board (Dr. C. A. Amesur) read his Seventh Annual Journal Report (1953—54) and showed the Audited accounts as published in the Indian Journal of Otolaryngology Vol. VI, No. 4, December 1954 page 158. This shows a credit balance of Rs. 7,041-2-0 to Journal account at Madras. Proposed by Dr. R. N. Kacker and seconded by Dr. L. K. Pathak "Resolved that the Seventh Annual Report of the Honorary Chairman of the Editorial Board and the Journal Audited accounts for the year 1953—54 of the Honorary Journal Treasurer at Madras be accepted." Carried unanimously.

6. Moved from the Chair (Dr. R. V. Rao) and carried unanimously. "Resolved that this conference places on record its grateful appreciation of all help and facilities given by Dr. K. L. Wig, Principal of the Medical College, Amritsar for holding the Seventh Annual Conference."

7. Moved from the Chair and carried unanimously "Resolved that this conference places on its record its grateful appreciation of the splendid scientific and social arrangements made by the Amritsar Reception Committee in General and its Chairman Dr. Tulsi Das in Particular."

8. Moved by Dr. C. A. Amesur and seconded by Dr. M. D. Adappa "Resolved that M/s. Sharp and Tannan, the Chartered Accountants and Honorary auditors at Bombay, be thanked for the kind services rendered for the year 1953—54 and are re-elected as Head Office auditors at Bombay on an Honorarium of Rupees fifty for the year 1954—55." Carried unanimously.

9. Moved by Major K. K. Ghosh and seconded by Dr. R. A. F. Cooper, "Resolved that M/s. K. John Ltd., the Chartered Accountants and Honorary Journal Auditors at Madras be thanked for the kind services rendered for the year 1953-54 and be re-elected as Auditors for the Indian Journal of Otolaryngology at Madras, on an Honorarium of Rupees Fifty for the year 1954-55." Carried unanimously.

10. Moved by Dr. R. A. F. Cooper and seconded by Dr. G. Narayan "Resolved that the Association of Otolaryngologists of India, thanks the Ministry for Communications, India, for granting fare concession to its delegates attending the Seventh Annual Conference at Amritsar. The Conference requests the Ministry, to kindly extend this facility every year, not only to the delegates but also their wives when they accompany them." Carried unanimously.

11. Proposed by Dr. M. M. Nath and seconded by Dr. P. B. Lal. "Resolved that the Ministry of Railways be again requested to reconsider their (4--2—53) decision regarding grant of concession in Railway Fare to the delegates attending the annual conference." Carried unanimously.

12. Moved from the Chair "Resolved that the Honorary Treasurer and the Honorary Secretary be requested to register the Association with the Charity Commissioner at Bombay, under the Bombay Public Trust Acts." Carried unanimously.

13. Dr. C. A. Amesur, suggested that in view of the fact that there is surplus cash both at the Head Office, Bombay and the Journal Office at Madras, which is not getting sufficient interest in the Banking account, Rs. 1,000 - from the Head Office and Rs. 3,000/- from the Journal Office be invested, in Government Securities under the Bombay Trust Acts rules. The interest accrued to the Journal, be handed over to the Journal Treasurer in August every year, along with a certified copy of the securities held in the Lloyds Bank Ltd., Bombay on their behalf for Annual Journal Audit.

(a) Proposed by G. M. Taneja and seconded by Dr. S. Jain "Resolved that the Hon. Treasurer (Dr. R. A. F. Cooper) and the Honorary Secretary be authorized jointly to buy Government Securities for the Face Value of Rs. 1,000/- from the Head Office Funds and placed in the custody of the securities department of M/s. Lloyds Bank Ltd. (D. Navroji Road), Bombay in the Associations account." Carried unanimously.

(b) Proposed by Om. Prakash and seconded by Dr. R. N. Kacker "Resolved that the Journal Treasurer (Dr. P. V. Cherian) and the Chairman of the Editorial Board (Dr. C. A. Amesur) be requested to hand over Rs. 3,000/- from the Journal account to the Head Office Treasurer (Dr. R. A. F. Cooper) to buy the Government Securities and deposit the same with the Head Office Bankers (M/s. Lloyds Bank Ltd., Bombay) in their securities department." Carried unanimously.

14. Moved by Major K. K. Ghosh and seconded by Dr. M. M. Nath "Resolved that the status emoluments and privileges of the Ear, Nose and Throat specialists on the staff of the E. N. T. Department of Hospitals and institutions should be at par with those of the Surgeons and Physicians attached to the same Hospital and institutions." Carried unanimously.

15. Proposed by Dr. M. D. Adappa and seconded by Dr. G. M. Taneja "Resolved that the Association views with great concern, the omission of E. N. T. representative on the Board of Surgical studies of the Bombay University, when every other branch is represented and requests them to rectify the omission." Carried unanimously.

16. Proposed by Dr. R. N. Kacker and seconded by Dr. S. Jain "Resolved that the Medical Council of India be approached to include the study of Ear, Nose and Throat in the curriculum of the under-graduates, as a subject separate from General Surgery and link it with that of Ophthalmology as a subject for University Examination." Carried unanimously.

17. As only one name was proposed for each of the following three offices, the Chairman declared them elected for the following periods :

President :— Dr. Tulsi Das for one year.

Hony. Associate Secretary :—Dr. G. M. Taneja, for one year.

Member :—Major K. K. Ghosh, for two years.

18. Under Rule 15(c) general discussion followed re-the venue of the next conference Proposed by Dr. P. B. Lal and seconded by Dr. M. D. Adappa "Resolved that the venue of the Eight Conference be left for the Governing Body to decide and circulate to the members through the June issue of the Indian Journal of Otolaryngology." Carried unanimously.

19. Moved by Dr. C. A. Amesur and seconded by Dr. G. Narayan "Resolved that we place on record, our great appreciation for the services rendered by Dr. R. Venkata Rao to the Association, during his term of office as President for 1954." Carried unanimously.

20. Dr. C. A. Amesur eulogised the services rendered by late Dr. S. G. Joshi at each and every one of the conference sponsored by the Association since 1947. On 11th December 1954 after taking a promise of one thousand from Dr. L. Hiranandani. Dr. Amesur, requested Dr. R. V. Sathe, to contact Dr. A. V. Baliga and Dr. R. H. Karmarkar with a view to get further donations from many admirers of Dr. Joshi from the Association, K. E. M. Hospital, Bombay and the musicians of Bombay. A meeting was soon called under the Chairmanship of the Dean of the G. S. Medical College, Bombay where Dr. R. V. Sathe was elected the Honorary Treasurer and Joe DeSa and Dr. R. H. Karmarkar as Joint Secretaries. Dr. Amesur then invited donatians for the Dr. S. G. Joshi Memorial Fund. Dr. Tulsi Das, president elect for 1955 suggested that an Oration should be given every two to three years from the interest obtained from collection of the Funds. Another thousand was promised and a plan formed that (1) the President Elect when he goes to Patna, to try and get donations from there (2) the Honorary Trersurer (Dr. R. A. F. Cooper) to circularize all members who were unable to come to the conference far away to Amritsar to join in the worthy cause.

21. Scientific papers for 1955 and 1956 were then invited.

22. Finally the Chairman (Dr. R. Venkata Rao) handed over the Insignia of the President to Dr. Tulsi Das with cheers, thus terminating the proceedings of the Seventh Annual Meeting.

Dr. SADASHIVE GOPAL JOSHI, M.S. (Bombay)

was born at Shedbal near Miraj on the 3rd January 1908.

He had his early education at the National School, Dharwar, under Shri R. R. Diwakar and Shri Hukerikar, who later became leaders of the Indian National Congress. He passed his matriculation from the Victoria High School, Dharwar in 1925. During his school career he showed proficiency in football and athletics. His national pride was to be seen in his high regard for leaders like Lokamanya Tilak and Mahatma Gandhi and in his devotion to Khaddar which he started using as a school boy and continued to do for ever in later life.

He passed the Inter Science examination from the Karnatak College, Dharwar, in 1927, and then he joined the Seth G. S. Medical College Bombay. Imbued as he was with a national pride, the atmosphere of the Seth G.S. Medical College seemed to suit him best of all. Because here were men on the staff who had already made name not only as great teachers but also as leaders in the struggle for freedom of India.

He stood first at the Final M.B.B.S. examination at the University of Bombay and won the Sandhurst Gold Medal for Pathology. At the G. S. Medical College, he was awarded the Nusserwanji Choksey Gold Medal for medicine and the Thakore Saheb of Limbdi Gold medal for standing first in the college. He passed his M.S. examination in 1934 and later won the Kasanji Ranchhoddas Prize for submitting the best analysis of surgical cases at the K.E.M. Hospital, Bombay. He was deputy to the Honorary Secretary (Dr. H. D. Gandhi) when the E.N.T. Section, under the Chairmanship of Dr. C. A. Amesur of I. M. A. was held at Bombay in 1933.

For three years he held House appointments at the K. E. M. Hospital in medicine, surgery, ear, nose and throat and as a Casualty Officer. He was Tutor, in Anatomy for 2 years at the Seth G. S. Medical College.

He joined the staff of the K. E. M. Hospital as Honorary Assistant Aural Surgeon on the 1st of January 1937, under late Dr. Homi D. Gandhi whom he succeeded as Honorary Aural Surgeon on the 16th of August 1948. He was also attached to B. J. Wadia Hospital for Children and the City Fever Hospitals as an E. N. T. specialist.

He had a First attack of Coronary thrombosis in 1946. He toured England, Switzerland, Sweden and the U.S.A. in 1947 and again in 1953.

He was a Joint Editor of the Indian Journal of Otolaryngology and one of the keenest enthusiasts amongst the members of the Association of Otolaryngologists of India and the Association of Surgeons of India. He represented the Association of Otolaryngologists of India as a member of the International Committee at the Fifth International Congress of Oto-Rhino-Laryngology held at Amesterdam in 1953.

Dr. Joshi was the Examiner for D.L.O. Bombay and Lucknow.

He married Kumari Indirabai in February 1935. She has been a source of strength to him in his varied activities. We have been seeing her at all our Conferences as a very active lady delegate. She has been doing plenty of social work at Karnatak and Bombay and we hope she will continue the same.

Late Dr. S. G. JOSHI.

The following were some of his contributions to Journals and Conferences :—

1. Carcinoma of the larynx by Dr. Homi Gandhi and Dr. Joshi. Journal of the Association of Surgeons of India.
2. King's operation for bilateral abduction Paralysis Indian Journal of Otolaryngology. October 1950.
3. Investigation and treatment of the incidence of deafness and frequency of Otosclerosis.
   Indian Journal Otolaryngology, September 1953.
4. Submucous Fibrosis.
   Indian Journal of Otolaryngology, September 1953.
5. Otosclerosis.
   Indian Journal of Otolaryngology, June 1950.
6. Caverous sinus thrombosis—Staff Society Meeting, August 1949.
7. Diphtheria—Paper read at the Maharashtra and Karnatak Conference in 1953.
8. Glomus Jugulare—Paper was to have been read in December 1954.

He had an attack of Coronary Thrombosis first in 1946. Fortunately he got over it. However, for all appearances he seemed to ignore this potential handicap in later life. His ambition spurred him on to more and more work. His indefatiguable industry reaped rich dividends as shown by the large practice he commanded from amongst all classes of patients.

Besides his devotion to duty there were many other facts which sparkled and added rich lustre to his life. To mention a few, one may quote his zeal and struggle for upto-date working conditions at the Karnatak Health Institute at Ghataprabha in Belgaum District. He was a member of its Governing Council. It was entirely due to him that a team of doctor specialists paid bi-monthly visits to the K. H. Institute for honorary work, regularly for the last five years.

His love for music and fine arts knew no bounds. Many an artist who needed a helping hand will remember him for ever with gratitude for the help rendered by him.

He helped the Indian National cause in many ways. In his school days he was brought up in that environment. His love for khaddar, swadeshi goods, Gandhiji's life and teaching was genuine.

His passion for sport had lately centered round golf. By his buoyant attitude, developed through sportsmanship he toiled cheerfully and boldly in every day life.

It will be hard to forget his ever-smiling face and aptitude to make and keep friendships. He has created a large circle of well wishers both in his profession and outside. They mourn his premature death from coronary thrombosis on 2nd December 1954.

He has left behind in sad bereavement his wife and five young promising sons. Let them find solace in the fact that their grief is shared by many.

C. A. AMESUR.

Dr. JOSHI MEMORIAL FUND

			Rs.
1.	Dr. Hiranandani	...	1,000
2.	Dr. Amesur	...	100
3.	Dr. Cherian	...	100
4.	Dr. Cooper	...	100
5.	Dr. C. Satyanarayana	...	100
6.	Dr. Kackar	...	100
7.	Dr. Ghosh	...	100
8.	Dr. Tulsi Das	...	100
9.	Dr. Venkat Rao	...	100
10.	Dr. P. B. Lal	...	51
11.	Dr. Adappa	...	50
12.	Dr. Ambegaonkar	...	50
13.	Dr. Nath	...	50
14.	Dr. Pathak	...	50
15.	Dr. Taneja	...	50
		Total ...	2,101

SIXTH INTERNATIONAL CONGRESS OF OTOLARYNGOLOGY

Office of the General Secretary

700 North Michigan Avenue, Chicago 11, Illinois, U.S.A.

To the Secretaries of Otolaryngological Societies.—The Sixth International Congress of Otolaryngology will take place at the Statler Hotel, Washington, D.C., U.S.A. from Sunday, May 5, through Friday, May 10, 1957, with Dr. Arthur W. Proetz of St. Louis as President. There will be three Combined Sessions. The topic to be discussed at these sessions and the names of those who will open the discussions will be announced later. General Sessions consisting of free papers will also be arranged and motion pictures of many phases of work in the specialty will be shown. Exhibits, both scientific and commercial, will be on display.

The Organizing Committee of the Congress is making elaborate plans that include many attractive social events as well as the scientific features mentioned above. Already a number of eminent men working in the field of otolaryngology have indicated their intention of attending the Congress and the occasion will provide an unusual opportunity to renew friendships and make new acquaintances among colleagues from all over the world.

We are anxious that everyone interested in the problems of this special field be kept informed concerning the Congress. I shall appreciate it, therefore if you will present this information to your society and I shall also be grateful if you will send me, as soon as possible, a list of the names and addresses of the members of your society. These names will be placed on the mailing list and bulletins concerning the Congress will be sent to them as plans develop.

We hope that you and many members of your society will begin now to make plans to attend the International Congress.

Very sincerely yours,

Paul H. HOLINGER, M.D.,
General Secretary.

DELHI BRANCH FORMED

Dr. C. A. Amesur, who had come to New-Delhi, as an adviser to the Public Service Commission, was free for half a day on 17th February 1955, after the interviews of E. N. T. Surgeons for Delhi's C. H. S. Scheme. He requested some members to meet him at his host's place (Dr. Sohan Singh) at Karol Bagh at 2-30 p.m.

After general discussion the local branch was formed and named "The Association of Otolaryngologists of India, Delhi Branch." By Delhi it was meant, Delhi, New Delhi, and the State of Delhi. The local subscription, was fixed at Rs. 6/-per annum. It was also decided that post-graduates could be local associate members (who need not be central members, but can neither vote nor hold office at local branch). The following office bearers were unanimously elected.

President	...	Dr. A. T. George
Member Editorial Board	...	Dr. S. N. Kaul
Hon. Secretary	...	Dr. H. S. Trehan
Hon. Treasurer	...	Dr. Sohan Singh
Other members of the Executive Committee	...	Dr. Pratap Singh Sindhu Dr. Savitri Itchaporia Dr. Man Mohan Razdon

Two more to be co-opted, one being the Chief E. N. T. Surgeon in Delhi's C. H. S. Scheme.

Dr. Kaul congraulated Dr. George and thanked the host, for providing lovely refreshments. Dr. Amesur eulogised the services rendered by Dr. S. N. Kaul to the medical profession in general, for he is not only an Ex-I.M.A. President but also that of the Ophthalmological Society of India. Because of Partition, the head office letters could not reach the Ganga Ram Hospital, Lahore, thus the Association has missed him at previous meetings. He will be a source of strength to the Association both Local and Central. Dr. Amesur thanked the members from Lady Hardinge, Irwin and Ganga Ram Hospitals for Co-operation and requested them to hold the clinical meetings, which they readily agreed. He finally thanked and wished the local Hon. Secretary Dr. H. Trehan and the local Hon. Treasurer Dr. Sohan Singh success in their new office, in which they are to open the Association Branches local account and operate jointly under the rules of the Association.

Abstracts

The combined use of antibiotic insufflation and vasodilator therapy in Ozena

By H. S. STERNSTEID, Boston.

(Laryngoscope, October 1954.)

Numerous attempts are made to establish the etiology as a rational basis for treatment. But only conclusion which was derived was that the disease is due to combination of various factors. The preliminary results suggested that proper combinations of antibiotics and vasodilators could be effective to eliminate odour and crusts and even reversal of pathological changes.

Secondary type of ozena was differentiated from the idiopathic one taking into consideration clinical, bacteriological and xray findings. Biopsy were obtained from the under surface of the inferior turbinates.

Author was also reviewed the subject as regards etiology, pathogenesis and histopathology of the disease. In reviewing the treatment, he states that Oestrogens were used since 1937 with limited results. In antibiotic therapy, Heilman used streptomycine and he noted the disappearance of odour and klebsella organisms. But atrophy remained unaffected. In vasodilator therapy, various investigators reported encouraging results attributing to increased blood supply and also to vitamin PP and nicotinic acid on the assumption that Ozena was due to dysvitaminosis. In surgical therapy with an idea of narrowing the chambers by osteotomies and bone implants have been favourably reported.

Author has reported 35 cases of primary Ozena treated with combined therapy. Age varied from 6 to 73 years and duration of Symptoms from 5 to 50 years.

Method of Study : Streptomycine, Terromycine and chloromycetine were used in micronized form for insufflation in combination with sodium laurylsufate and Betalactose. Antibiotics were used in two strengths namely 25% and 50%. Side effects such as stinging sensation and lacrymation, wereat times noted. In such cases intramuscular injections were used. Particular antibiotic was selected by noting the predominant flora and clinical response. Sensitivity tests were also conducted. Vasodilator Therapy was based largely upon the use of Priscolin in dosage of 50 mgs.—4 to 8 tabs. daily. Patients were instructed of the various side effects. Side by side instillation of low pH nebullae consisting of 5% of Papaine 6% of Betalactose, 5% Glycerine and 5 % alcohol in 100 ccs of distilled water. Improvement in odour crust formation and discharge were taken as criteria And it was evident from 3-8 wks. following the treatment.

Results were noted in 35 cases. With 48% Striking improvement. 13% Significant. 8% Slight. Rest with no improvement.

Author has also reported of cases with xrays and microscopic evidence of regeneration of respiratory epithelium.

In concluding author States that combined therapy of antibiotic and vasodilators offers a promising method for the effective elimination of odour and crusts and reversal of pathological changes.

P. P. KARNIK, Bombay.

Papilloma of the Larynx

By J. A. RUBIN, Winnipeg.

(Canadian M. A. Jour., December 1954.)

One of the commonest problem confronting the Otolaryngologist. Treatment is still unsatisfactory. Several theories have been offered regarding the causation but as yet no general agreement with regard to any one theory. Viral origin was favoured by many since 1923. Ullman substantiated the same by noting laryngeal papilloma with cutaneous 'warts'. It was accounted to inflammatory reaction to a filterable virus. Holinger has reported good results with the use of aureomycine.

Trauma and irritation which is always considered as a common factor in all the tumours irrespective of the site. Therefore recurrent attacks of laryngitis is blamed. This is plausible in adults where trauma is acting for a longer period. But does not explain in children.

Hormonal factor was favoured because its tendancy to regress at the time of puberty. But its exact manner of action is debatable.

Incidence varies from clinics to clinics as polyps are excluded as neoplasms from pathological view point. It is found to be more common in males and Jackson has reported its occurrence in newly born infant and in 84 year old male.

Pathologically it is essentially papillary hyperplasia with intact basal membrane. The lesion may appear pedunculated or sexite with glistening elevated masses. It is found to be friable in adults and tougher in children. Three types are described microscopically namely (1) simple (2) Hyperkeratotic, the commonest of all (3) the multiple type.

Symptoms depend upon the size, location and nature of growth, and are due to compression of adjacent parts, and mechanical interference with the function of voice production and respiration. Direct laryngoscopy is necessary in infants and most of the children. Commonest site is on the and ⅓rd of Vocal cords.

Marked recurrence. In young children despite all treatment is well known. In adults they tend to grow more slowly and recurrence is uncommon.

Complications are common with multiple type and are the nature of asphyxia; pneumonia and transplantation lower down and malignant change. The accepted treatment is—In adults surgical removal under direct endoscopy. In children with forceps removal combined with aureomycine or oestone therapy.

Author has also given summary of 26 cases during the last 17 years, with follow up of 13 cases, where 12 were without recurrence and one with malignant change.

P. P. KARNIK, Bombay.

A Study of lymphoid tissue of the nasopharynx

By PHILIP MELTZER, Boston.

(The Anns. of Oto-rhino-laryn. September 1954.)

During the course of study as regards causes of deafness in children, the author noted the intermittent tubal closure appeared to be related to recurrent adenoid growth. In many of these cases neither surgery nor post-operative x-ray treatment of the lymphoid tissue put a stop to regrowth. In searching for an answer to this, author has tried to throw some more light as regards the nature of and its importance to organism.

The problem of nasopharyngeal lymphoid tissue resolves itself into two distinct categories, the rhinological and otological. The former is due to its size and the latter is due to its site. Simple removal of the mass improves the rhinological symptoms but its location near the tubal orifices poses a difficult problem.

Histologically lymphoid tissue in nasopharynx is a mass of lymphocytes of various sizes together with a supporting framework of reticulum cells and of fibrous tissue. But it is devoid of afferent vessels. In the course of their investigations sixty six patients were chosen, who were submitted for operation. The lymphoid tissue was sent for biopsy report to determine whether there was actual hypertrophy or oedema resulting infection or allergy.

In considering function, Virchow in 1860 formulated the concept of defence against infection. This is furthur attributed to filtering mechanism and also to antibody formation. Skoogs states that the function is not to immunize the organism in the ordinary sense but to stimulate the R. E. system to produce antibodies. Yoffey believes in the "growth factor" essential in childhood.

Anatomically the most significant fact is the variability of the size and shape of nasopharynx, more so of the torus and fossae of Rosenmuller. This accounts for the indifferent results achieved in the ordinary blind adenoidectomy.

Pathological changes are both due to allergy and infection which is strongly supported by the number of cases showing improvement following allergic management in their patients. The work now going forward in exploring the relationship between lymphoid tissue growth and involution and endocrine glands, promises to provide with the key to effective treatment.

Author concludes by a note on Radium irradiation. Anatomical variations were too great for accurate positioning of the Radium applicator. He has never seen a lymphoid mass resolve following its use. But surgery is by any means not perfect solution. Perhaps the use of all three, namely surgery, irradiation and antiallergic treatment will relieve the tubal obstruction.

P. P. KARNIK, Bombay.

Discussion on the Treatment of Nasal Polyp

By Dr. S. W. G. HARGROVE.

(Proceedings of Royal Society of Medicine, December 1954.)

In early part of his discussion author has dealt extensively with the historical data of the subject of Nasal Polypus. He also gave the outline of evaluation of treatment of the said condition since the days of celsus and Hippocrates. The former advocated use of astringents and the latter, the use of forcible pulling of a string with a spong thro post nasal space. Snare was introduced first by Robertson of Edinburgh in 1805, and Morell Mikenzie recommended the electric cautery and punch forceps. But these treatments failed as the fact was not appreciated that the underlying disease was essentially in the ethmoids. Thus since 1885 Sluder, Hajuk, Mosher and Bellanger advocated intranasal ethmoidectomy. Ogston first did the extranasal ethmoidectomy. It is generally accepted that polypi are allergic in origin but may become secondarily infected.

In discussing the treatment, discussor advocates routine xray of ethmoids so as to ascertain the degree of infection and to note the distribution of ethmoidal cells. Xray of the chest is taken to exclude Bronchiectosis. If there is a strong allergic history, patient is also treated for the same.

Polypi are removed under xylocain/adrenaline anaesthesia by means of snare. After a week, if there are remnants, further removal is advocated. Patient is asked to return after 6 months. If there is recurrence then under general anaesthesia, limited exentration of cells is advocated. This limits the spread of Infection into ethmoidal labyrinth. In many instances this is all that is needed. But on further recurrences, repeated intranasal operations will lead to marked fibrosis and proliferative osteitis. Discussor advocates external approach and his choice rests upon Norman Patterson type of operation. The article is profusely illustrated with pictures as regards the technique of the operation. The aim is essentially the removal of all polypus bearing area including lamina papracea, middle and superior turbinates and the whole of ethmoidal labyrinth.

Results in 71 cases with 30 cases of bilateral operation are discussed. Only in one instance crusting was precipitated, and in another there was marked recurrence due to allergy. In 7 cases small polypoidal lags were removed under local anaesthesia but no gross recurrence was noted. The technique of the operation may be modified to suit the individual requirements.

P. P. KARNIK, Bombay.

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Observations on the Anatomy of the Cardiac Sphincter

BY

INDAR JIT, M.B., M.S., (Pb.), PH.D. (Lond.), P.G.M.S.,

AND

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(*From the Department of Anatomy, Medical College, Amritsar*).

INTRODUCTION

The earliest case of mega-oesophagus is said to have been described by Willis in 1672. For his patient, he prepared a bougie with a rounded button of sponge at one end. After every meal the patient thrust the bougie into his oesophagus and thus pushed the food into the stomach. In 1882, von Mikulicz attributed this condition to a true spasm of the circular muscle coat at the lower end of the oesophagus. As the condition of mega-oesophagus is somewhat analogous to pyloric stenosis and as the pyloric sphincter existed beyond doubt, he visualized the presence of a similar sphincter at the cardiac end of the oesophagus. Hurst (1914) popularised the theory of "failure of relaxation" of the possibly existing cardiac sphincter. Whether there is any essential difference between "spasm" and "failure of relaxation"—hence between "cardio-spasm" and "achalasia" still remains a fine academic hair splitting question. According to him the normal activity of a sphincter-muscle consists in its active relaxation and that at rest its postural tone obliterates the lumen of the passage it surrounds. Hurst further believed that "cardio-spasm was due to paralysis of the vagal opening mechanism of the cardia". A perusal of the books of anatomy published before this time, will fail to show a description of

the so called sphincter. In 1916, Shattack demonstrated some anatomical preparations before the Royal Society of Medicine showing a thickening of the circular muscle coat at the lower end of the oesophagus constituting a sphincter. Since then the cardiac sphincter became an anatomical entity and thus came to be described in the anatomical books. Lerche (1950) was able to discover from literature that Laimer in 1883 had also described a circumscribed thickening of the circular muscle coat 3 centimeters above the diaphragm which he referred to as the inferior oesophageal sphincter.

For the first time Rake (1927) showed that in patients with cardiospasm there were degenerative changes in the ganglionic cells of the Auerbach's plexus. These findings were later on confirmed by other workers.

A large number of text-books of Anatomy describe the presence of the cardiac sphincter. According to Gray's Anatomy as edited by Johnston and Whillis (1952) the circular muscle coat of the lower end of the oesophagus is " somewhat thickened " to constitute a cardiac sphincter. Keith (1948) and Hewer (1949) also describe a similar cardiac sphincter. According to Wright (1952) " the last inch or more of the oesophagus including the whole of the abdominal portion is sphincteric in its action. The muscle coat here is thicker.....".

According to Jackson (1933) the cardiac sphincter is formed by the circular muscle layer of the oesophagus and the adjacent fibres of the diaphragm. McGregor (1946) also supports the presence of a cardiac sphincter. Cho (1931) although he did not mention the exact time of the development of the cardiac sphincter, stated that the circular muscle coat in the cardiac region thickened itself at a stage much earlier than the 190 mm. body length to constitute a sphincter. On the other hand other workers like Lendrum (1937) and Nemours-Augeste (1949) have failed to detect a sphincter. The present study was undertaken to find out if any such sphincter could be demonstrated at the lower end of the oesophagus at the gastro-oesophageal junction.

MATERIAL AND METHODS

Macroscopic examination followed by a histological study of the region from 27 cadavers ranging between the ages of 20 and 65 years, 1 infant, 4 new-born children and two foetuses nearing full term. In smaller specimens longitudinal section from the lower third of the oesophagus including the proximal portion of the stomach were obtained. In larger specimens, upto

three inches of the lower end of the oesophagus and adjacent portion of stomach was examined histologically. Care was taken to obtain sections from several parts of the circumference of the oesophagus. When the tissue was larger than the slides the former was cut into parts. The size of the tissues including the circular muscle coat and muscularis mucosae was measured with the help of a micro-millimeter eye-piece. Some specimens in fresh bodies were examined macroscopically before fixation fluids were injected. In three specimens from new-born children, the oblique muscle coat of the stomach was dissected after using Marcacci's macerating fluid (Oddi, 1887).

Embryological Study.—The oesophagus and stomach were studied in 28 closely graded embryos and foetuses from 4 mm. C. R. stage to full terms (42, 7·1, 10, 11·5, 13, 14, 17, 17·5, 21, 25, 26, 30, 30, 38, 38, 42, 43, 47, 59, 60, 62, 68, 92, 94, 99, 145, 150 and 175 mm. C. R. stages). Embryos and smaller foetuses were studied in complete serial sections, whereas in case of larger foetuses only token section of the region were taken.

STAINING METHODS

Staining methods included Masson's trichrome, iron haematoxylin and Van Gieson's, Mallory's phosphotungstic acid haematoxylin, haematoxylin and eosin, de Castro, and Verhoeff's.

FINDINGS

Differentiating cranio-caudally the circular muscle coat in the oesophagus is indicated by elongated cells arranged concentrically at the 7·1 mm. C R. stage. Distinct myoblasts staining characteristically by Masson's trichrome can be identified in this layer at the 10 mm. C. R. stage and coarse myofibrils can be recognised at the 13 mm. C. R. At the 13-14 mm. stage this coat extends into the whole of the stomach. The longitudinal muscle coat differentiates in the oesophagus at 25 mm. C. R. stage and by 30 mm. C. R. stage it is well indicated throughout the stomach. The oblique fibres in the stomach develop at the 25 mm. C. R. stage. At the 17 mm. C. R. stage thickening of the mesodermal cells at the site of the future pyloric sphincter can be easily recognised (Fig. 1). Similarly the ' anlage ' of the internal anal sphincter can be seen at the 26 mm. C. R. stage (Fig. 2). The muscularis mucosae which is directed longitudinally in the oesophagus and differentiates at its lower end at 30 mm. C. R. stage extends to the cardiac end of the stomach at 38-42 mm. C. R. stage, but it does not extend to the

rest of the stomach till the 120 mm. C. R. stage. Although at the 38 mm. C. R., both the muscle coats including the muscularis mucosae are well indicated at the cardio-oesophageal junction and throughout the oesophagus, there is no indication whatsoever of a thickening of the circular muscle coat in the lower end of the oesophagus (Fig. 3).

Similarly an examination of material from older foetuses, newborn children and adults failed to reveal a cardiac sphincter (Figs. 4, 5 & 6). Measurements taken by a micromillimeter scale in various sections did not show any appreciable difference in the thickness of the circular muscle coat in the different parts of the lower half of the oesophagus and cardiac end of the stomach.

DISCUSSION

Sphincteric Mechanism at the Cardiac End of the Stomach.—A number of theories have been propounded to explain the sphincteric mechanism at the cardiac end of the stomach and thus attempts have been made to explain the cause of mega-oesophagus. Let us examine some of the important theories of the sphincteric mechanism and see if they are based on any scientific findings.

1. **The presence of a real cardiac sphincter in which the circular muscle coat is thickened.**—As stated before our findings do not support this theory. Some investigators have argued that those workers who have described a localized thickening of the circular muscle coat at the lower end of the oesophagus have in fact based their findings on one or two specimens which showed "puckering" of the gut wall or the rings of contraction and thickening due to fixation and embalming of the cadavers. In order to obviate this artifact, apart from making a naked eye examination in specimens obtained from fresh bodies, we thought of studying the problem in closely graded embryos and foetuses. When a sphincter develops it shows in the form of a localized thickening of the mesoderm. This is followed by conversion of mesodermal cells into myoblasts giving characteristic differential staining reaction with such stains as Masson's trichrome. In due course the myoblasts show myofibrils. This story can be followed in the case of almost any recognized sphincters of the gastro-intestinal tract. For example, as stated before, the 'anlage' of the pyloric sphincter can be identified as thickening of mesodermal cells at 17 mm. C. R. stage (Fig. 1) that of internal anal sphincter at the 26 mm. C. R. stage (Fig. 2). In case the cardiac sphincter is anatomical entity, we should be able to

PLATE I (Explanation of Figures)

Fig. 1.

Pyloric sphincter in a 17 mm. C.R. embryo is indicated by a spindle shaped thickening of the circular muscle coat. X 108.

Fig. 2.

A longitudinal section of the anal canal of a 26 mm. C.R. embryo showing a thickening of the circular muscle coat at its caudal end forming the internal anal sphincter. X 108.

Fig. 3.

A longitudinal section of the lower end of the oesophagus and the cardiac

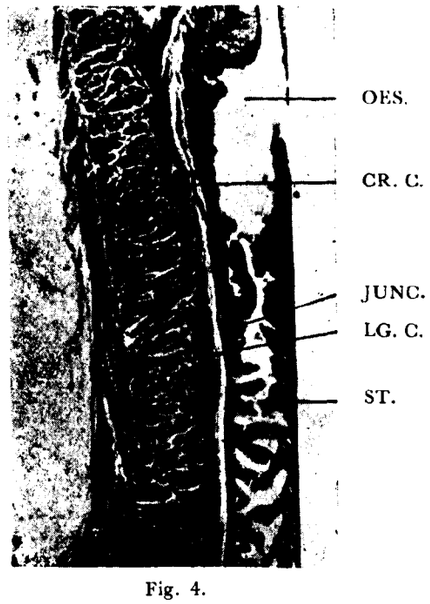

Fig. 4.

A longitudinal section of the lower end of the oesophagus and the cardiac

PLATE II

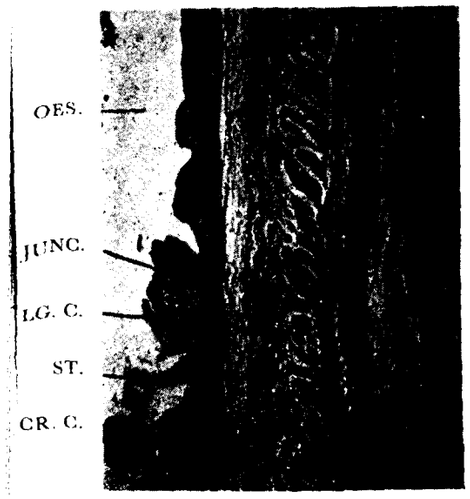

Fig. 5.

A longitudinal section of the lower end of the oesophagus and the cardiac region of the stomach of a 175 mm. C.R. foetus. Observe the absence of a thickening of the circular muscle coat at the cardio-oesophageal junction. X 60.

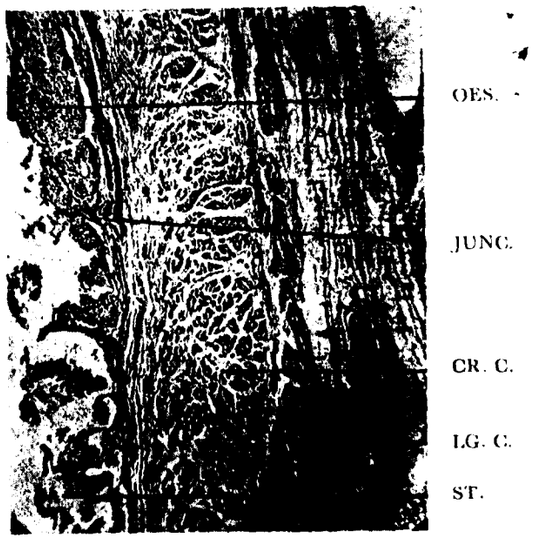

Fig. 6.

A longitudinal section of the lower end of the oesophagus and the cardiac region of the stomach of a new born child, showing the absence of a sphincter. X 50.

Fig. 7.

Schematic drawing of a specimen of the stomach turned inside out showing the muscle-sling constituted by the oblique muscle fibres. The fibres on the posterior wall of the stomach run upwards to the incisura and then extend on to the anterior-wall.

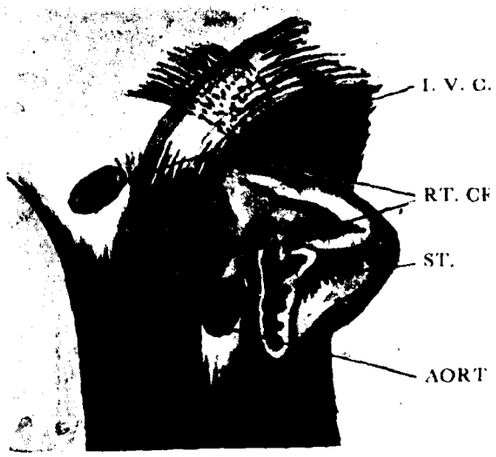

Fig. 8.

Drawing of a specimen showing the bifurcated fibres of the right crus crossing each other after encircling the oesophagus.

get similar findings in this case as well. If such a thickening of the circular coat can be seen in embryos or foetuses, the possibility that it is due to some sort of the artifact or contraction of circular muscle fibres due to fixation can be ruled out, because at the mesodermal stage the question of contraction of myoblasts cannot arise.

2. Berry and Crawford (1900) described a fold in the upper and posterior part of the lower end of the oesophagus which according to them acted as a valve. Our attempts to find such a fold in the present material have been unsuccessful.

3. Recently Dornhorst et al (1954) recorded pressure changes in the oesophagus by means of manometers in some volunteers. They came to the conclusion that the human cardia is a very localized region (less than 5 mm. long) which acts as a valve i.e. offering very little resistance to downward passage of food but resisting a retrograde flow to a considerable extent. According to these workers the muscularis mucosae which is well developed in the lower part of the oesophagus pulls the lax mucous membrane constituting a valve which is capable of active opening for eructation of gas and vomiting. As our figures 4, 5 and 6 will show the muscularis mucosae is equally developed in the stomach wall, in the older foetuses. In children and adults also there is no indication to show that the muscularis mucosae is particularly well developed at the lower end of the oesophagus as compared to its middle or the other parts of the gut. Hence it appears that this theory is not supported by histological findings.

4. According to Barrett (1952) there is an acute bend between oesophagus and stomach because the latter is directed forward and to the left. He considered that this angulation which would increase with the filling of the stomach itself acts as a valve between the two organs. He further stated that oblique muscle fibres in the wall of the stomach encircled the cardiac incisura and acted as a sling which on strong contraction would obliterate the oesophageo-cardiac passage. Using Marcacci's fluid dissection of the stomach exhibited a well developed muscle sling running from the posterior wall of the stomach upwards on to the incisura and then extending on to the anterior wall (Fig. 7). That this sling plays some important role in controlling the oesophageo-gastric junction is proved by the fact that in Heller's operation which is very effective in cases of cardiac achalasia, some of these fibres are divided and the sling is put out of action.

CONTENTS

5. **Diaphragmatic pinchcock.**—As pointed out by Low (1907) the fibres of the right crus of the diaphragm bifurcate to enclose the oesophageal opening. These fibres of the diaphragm play the most important part and constrict the oesophageal lumen on contraction. According to Allison (1951) the bend at the gastro-oesophageal junction " is lassoed and maintained by the right crus of the diaphragm which hitches it down to the lumbar spine." He observed that contraction of the right crus compresses the oesophagus from side to side and also by pulling down the junction the angulation between the stomach and oesophagus is increased. Wooler (1952) supported this theory of diaphragmatic pinchcock by advancing further arguments in its favour. According to him normally barium can be seen to be held up at the cardiac end of the stomach during inspiration and during oesophagoscopy this pinchcock action can be felt and seen when an attempt is made to pass the instrument into the stomach. The most convincing argument advanced by him is that on stimulating the phrenic nerve the two fingers placed in the oesophageal hiatus are gripped by the surrounding fibres of the diaphragm. On examination of some dissected specimens in adults show that the fibres of the right crus after encircling the oesophagus cross one another (Fig. 8). This finding is in variation with that given by the previous workers. Further it is seen that there is a considerable distance (up to 3 cms. or so) between the upper fibres of the right crus and the fibres which go below the oesophageal opening, so that when the right crus contracts the upper fibres will press the oesophagus against the aorta and the vertebral column lying posteriorly and the lower fibres will press the oesophagus forward against the liver. The contraction of the fibres at the site of crossing will pull the oesophageo-gastric junction downwards, thus increasing the incisura.

If the spasm or failure of relaxation of the diaphragm pinchcock is the cause of cardiac achalasia it would appear that it should be a simple matter to treat such cases by right sided phrenectomy. However, such operation have always ended in failure. The reason is not far to seek. An examination of serial sections stained by de Castro's technique show that fibres of both phrenic nerves supply the diaphragmatic sling.

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Dr. Y. Sachdeva.—Cases of megaoesophagus appear to be quite rare in this country. So far I have operated on one definite case of megaoesophagus in which on opening I found that the diaphragmatic hiatus was very much constricted and had gripped the oesophagus tightly. Although I performed Heller's operation in this particular case, but I had to enlarge the hiatus after cutting the fibres of the diaphragm. I support the findings of the authors and consider that the tonic contraction of the diaphragmatic pinchcock was the most important factor in case of megaoesophagus.

Dr. Shiv Kumar.—In my opinion the authors have produced no evidence at all to declare that the cardiac sphincter is not an anatomical entity. I think the authors should have taken the material from 200 to 300 cadavers and measured the width of the circular muscle coat at different levels of the oesophagus.

Dr. Sukhanand Jain.—I consider that perhaps the Heller's operation succeeded because the nerves going to the lower end of the oesophagus get divided.

Dr. Tulsi Das.—In my opinion the embryological bases of the size of the opening in the diaphragm should be studied.

Dr. Santokh Singh Anand.—In my experience oesophagoscopy shows that the lower end of the oesophagus does not offer any difficulty to the passage of the instrument during inspiration. In my opinion the sub-mucous myotomy or Heller's operation could only succeed if there was a sphincter at the lower end of the oesophagus as the operation was similar to Ramstadt's for pyloric stenosis where pyloric sphincter is a well established fact.

Dr. Adappa.—Have the authors in their histological slides ever seen the extension of the mucous membrane of the stomach to the lower end of thc oesophagus at certain parts ?

Dr. Chhuttani.—What is the position regarding the ganglion cells in cases of megaoesophagus, pyloric stenosis and mega-colon ?

Dr. Indar Jit.—In reply to Prof. Shiv Kumar's remarks I have to say that we took the measurements with the help of a micromillimeter eye piece. Our results are based on the same. In view of the fact that we have taken material from 27 adults cadavers, 1 infant, 4 new-born children and abundant pre-natal material and found negative result, I do not think any useful purpose will be served by taking material from 200 to 300 cadavers.

The reasons given by Dr. Jain may partially explain the success of the Heller's operation but an examination of the de Castro's material shows the fibres going radially rather than circumferentially from the outer to the inner side.

Regarding the remarks of Dr. Santokh Singh, I mention that since an operation similar to Heller's is being tried in cases of mega colon particularly in Brazil, but nobody seems to have suggested a sphincter in the colon, it appears that the argument of Dr. Anand is not very convincing. In my opinion the basis of the success of Heller's operation still remains a mystery.

As regards Dr. Adappa's question, I have to state that islands of gastric mucosa are sometimes seen in the lower end of the oesophagus.

About Dr. Chhuttani's question, as far as I know the absence of ganglion cells has definitely been shown by Bodian and others in cases of mega-colon but similar definite findings have not been reported in cases of pyloric stenosis or at the site of

obstruction in cases of mega-oesophagus. However, in long standing cases, the dilated portion of the oesophagus does show degeneration of the ganglionic cells of the Auerbach's plexuses, but it is difficult to say if they are the cause or the effect of the condition.

Dr. Shiv Kumar.—Questioned Prof. Indar Jit's thesis that there was no anatomical basis for cardio-spasm.

Dr. Shiv Kumar contested that the histogenetic and histologic evidence furnished by Prof. Indar Jit et al his presentation was of an indirect nature, impressionistic, and needed further critical and quantitative analysis, and as such it did not prove the absence of an anatomical basis for cardiospasm. Further an experimental (Dynamic) approach was more likely to furnish direct evidence for solving the problem of cardiac sphincter and its spasm. Functional events are usually enacted on a structural (not ethereal)—basis, unless proved otherwise, and in this respect Prof. Indar Jit had failed to prove his thesis. Dr. Shiv Kumar then cited some recent experimental observations on " cardio-spasm " from current literature :—

(i) Butin (1953) Gastro-enterology, 23, 607-611 in their et al study of the pressure changes in the oesophagus during swallowing, using a miniature electrical transducer recorder in the oesophagus observed an intial negative wave, followed the last of which was a true peristaltic wave passing the recorder. However, in patients with cardiospasm, they observed slight spontaneous motility, extremely variable reponses in pressure after swallowing but could not identify any co-ordinated distally travelling wave of peristaltic type.

(ii) Jeffeson et al (1951) Am. J. Digestive diseases (8,217-19) demonstrated that in dogs, the section of Vagus nerves. Just below the bilus of the ling accompanied by separation of the trunks from the oesophagus was followed by Cardiospasm and oesophageal retention in every animal studied. These were preventable by simultaneous section of the left phrenic nerve. Vagatomy. Just above or below the diaphragm was not followed by an disturbance of the cardia or the oesophagus.

(iii) Donald, (D. E). (1952) Surgery, 31, 251-57, working on the rat observed that bilateral Vagatomy above the root of the lung caused complete paralysis of the oesophagus and death.

However, Section of the Vasi, just above or below the diaphragm did not Paralyse the oesophagus but led to its pronounced dilatation. In the rat, the stomach clearly participated in the development of the dilatation, for it was prevented by gastric resection, and made worse by operations designed to render cardia more patent.

(iv) There is pathologic evidence to midicate that cardiospasm is the result if a neuromuscular dysfunction of the oesophagus proper and it would appear that myenteric ganglia, particularly in the region of the cardia, are primarily involved. Dr. Shiv Kumar fully supported Dr. M. L. Aggarwal's comments in this connection. Prof. Indar Jit showed no evidence on this topic in his presentation. There is thus, experimental and pathological evidence that the intra-abdominal portion of the oesophagus, does function as a true bitrinsic sphincter, relaxed by stimulation of the Vagus and contracted by the stimulation of the sympathetic. The oesophageal sphincter is capable of functioning independently of the surrounding structures. Hence Cardio-spasm produced experimentally by bilateral vagatomy or the one clinically met with would seem to be due to predominerring sympathetic action, as it does occur occasionally in patient's with peptic ulcer subjected to do able vagatomy. All these observations would seem to point to a definite anatomical basis for Cardiospasm.

Dr. C. A. Amesur, Bombay.—A Sphincter is not required to retain food in the oesophagus. In fact the presence of the sphincter at the cardiac end of the stomach is disputed. Perhaps the diaphragm suffices. The decussating fibres of the right crus at the level of 10th Thoracic Vertabra suffice as the oesophagus pierces this.

Dr. S. S. Anand, Amritsar. - From a general Surgeon's point of view the good results that follow the Heller's operation are convincing that the circutor fibres in the cardiac of stomach act as a Sphincter although on endoscopy, the oesophagoscope can be passed easily into the stomach.

Dr. R. A. F. Cooper, Bombay.—I saw a lot of this work being done at Hay's Martin Clinic. It is called commando operation. They could not explain why this name was given to it. I discussed with them how unilateral dissection was helpful. Bilateral

dissection to my mind was more sensible. No explanation was offered. I saw man called John Conley doing at the same stage removal of larynx, part of pharynx, mandible on same side, half the tongue and part of the soft palate and the patient was made to walk and brought to 8th floor for dressing within 24 hours. As I told them they have reached a stage when they take the patient out of the tumour rather than vice versa. The recent trend is for radical surgery rather than deep rays.

PLATE ABBREVIATIONS

AN. C., anal canal.

CR. C., circular muscle coat.

I. A. SPH., internal anal sphincter.

I. V. C., inferior vena cava.

JUNC., junction Oesophageo-gastric.

LG. C., longitudinal muscle coat.

MUS. M., muscular is mucosae.

MUS. SL., muscle sling.

OES., oesophagus.

PY. SPH., pyloric sphincter.

RT. CR., right crus of the diaphragm.

ST., stomach.

Lateral Sinus Thrombosis

(A FEW CASE REPORTS)

BY

M. D. ADAPPA, M.B., B.S.

These are a few case reports on Lateral Sinus Thrombosis. The purpose of this short paper is to emphasise the fact that the clinical picture of lateral sinus thrombosis has completely changed since the advent of antibiotics.

Case No. 1.—Boy N. G. age 10 years had an acute attack of upper respiratory catarrah followed by right middle ear infection. On the third day of the infection treatment with Penicillin was instituted. The clinical course appeared very satisfactory. By that I mean that the temperature improved, the pain subsided, and the toximea disappeared. Penicillin was continued for a week because of the low grade persistent temperature. At the end of the first week the boy still had a low grade irregular temperature and also occasional head-ache. The patient was taken to a E. N. T. Specialist by the Pediatrician for consultation. Paranasal sinus infection was diagnosed and therapy with Terramycin was advised. With above treatment there was but little improvement. The boy was irritable and had disturbed sleep due to head-ache. The Specialist suggested that Aureomycin be given. Another week passed without any improvement. Gantracin was tried for the last week. At the end of this period the child was shifted to the Children Memorial Hospital, Montreal, Canada for observation. On clinical examination it was found that the child had a low grade irregular temperature, mild leucocytosis, slight thickening of the right ear drum with loss of light reflex. An X-Ray of the mastoids revealed breakdown of the cellular structure with clouding of the cells suggesting retained secretions. A diagnosis of right mastoiditis was made. As the investigations were completed, the child developed typical Jacksonian convulsions on the left side of the body. Neurological consultation was requested. Lumbar puncture was suggested by the Neurologist. C. S. F. showed an increase in the pressure and also an increase in the cell count (30 Lymphocytes). There was no papilledema. A diagnosis of oedema of the brain due to superficial cerebral venous thrombosis was suggested. Mastoidectomy was performed as an emergency procedure. X-Ray diagnosis was confirmed during operation. The sinus plate was deficient in places. Perisinus

abscess was seen. The sinus appeared very much thickened. Needle aspiration of the sinus showed that the lemun was not completely obliterated, but that there was marked narrowing. The sinus was exposed backward towards the Torcular until healthy dura was encountered. The child made an uneventful recovery after the operation.

This case very clearly illustrates that the clinical picture of sinus thrombosis has changed considerably in cases treated with Anti-Biotics. This patient was ambulatory all along till he developed convulsion. I would like, here, to point out that in acute infection of closed caveties like the middle ear and mastoid antrum anti-biotics do not replace surgery, but are only hand-maidens of surgery. This is very true in infections of the middle ear in children and infants. Probably a timely and adequate surgical drainage by paracentesis could have in this case prevented a mastoiditis and consequent lateral sinus thrombosis. The ear drum in an infant is more elastic and does not perforate easily. The importance of early myringotomy in children and infants is not being well appreciated. This case moreover illustrates that the treatment with anti-biotics gives the attending Physician a false sense of security until such time as a dangerous complication that may set in. The complication may set in very insidiously as to be completely overlooked. When the complication sets in, the ear as the prime offender is completely overlooked. In this case, ear was not suspected to be causing the headache because the drum looked almost normal. I am not stating that anti-biotics have no place in acute middle ear infections. It certainly has, but the sound fundamental surgical principle to establish adequate drainage is the treatment of choice—anti-biotics are only supportive treatment. When surgery is deferred and recourse to anti-biotics is taken a careful watch on the progress of the patient is imperative.

Dr. W. J. McNally, Chief Otolaryngologist at the Royal Victoria Hospital, Montreal, Canada, has reviewed cases of superficial cerebral venous thrombosis treated and autopsies done over a period of 25 years at the above hospital and the Montreal Neurological Institute. He states that superficial cerebral venous thrombosis is definite clinical antity. The symptomatology points to a localised cerebral involment as evidenced by convulsions, focal palcies and increased intracranial tension. But on contrast Roentgenography, surgical exploration and at autopsy no abscess is demonstrated. He also states there is always a tendency for spontaneous recovery in these cases. In these cases with symptoms of localised cerebral involment brain abscess should be

given the first consideration. But in these days of anti-biotics the abscess formation is stopped in an intermediary stage and only a superficial cerebral venous thrombosis may be encounterd.

Another fact that I want to emphasise here is that how little is done for the pathology in the sinus lumen and yet there is marked improvement in the patient. The decompression produced by the exposure of the sinus has probably the most to do with this sense of wellbeing. It also appears as though eradicating the primary deseminating focus i.e., the Mastoid air cells and antrum, takes care of the rest of disease process.

Case No. 2.—Boy F. B., 10 years of age had an acute right ear ache for the first time on the 5th of November, 1953. On November 8th, he developed severe pain behind the right ear followed by swelling behind the right ear. He was treated with penicillin by his physician. On the 9th of November, he was hospitalized and treated with more penicillin and local heat. The patient was discharged on November 14. On returning home he complained of headache on the same night and his mother noticed that he had a squint. Since then he has had occasional headaches and vomitting and also complained of dimness of vision. On November 18, mother noticed a little discharge in the right ear. The patient was first seen by the eye service of the Illinois Eye and Ear Infirmay on the 20th of November for complaints of diminished vision and squint. Papilloedema of 2D and paresis of the right lateral rectus was noted on examination. With a history of recent ear infection and in view of the above findings, the patient was referred to the E.N.T. Department. He was first seen by us on the same day. On examination the left ear appeared normal. The right ear canal was filled with thin purulent discharge. The tympanic membrane appeared thickened, red and bulging. Landmarks could not be seen nor perforation visualised. Hearing was normal in the left ear, with marked diminished hearing in the right ear for conversational voice. Weber was lateralised to the right side and Rinne was negative on the right side. Neurological examination confirmed the ophthalmological findings. The patient had no temperature on admission. Mastoid X-Rays revealed breakdown of intercellular outline and clouding of the right mastoid air cells. Total W.B.C. count was 14,300. There was a moderate increase in the spinal pressure and the cell count was 23% lymphocytes per cmm. The Tobey and Ayer test was applied. No raise in the spinal pressure was demonstrated with pressure on the right jugular vein unlike on the left jugular vein. In view of the above findings a tentative diagnosis of right

lateral sinus thrombosis secondary to right mastoiditis was made. Right mastoidectomy was done on the same day. The above diagnosis was confirmed on surgical exploration. The thrombus from the lateral sinus was removed followed by ligation of the right jugular vein. The pathological report revealed the following:—(1) sub-acute osteomyelitis of the mastoid bone, (2) organising thrombus of the right lateral sinus, (3) sinus wall with attached septic thrombus. The patient had an uneventful recovery. It is significant once again that the patient was ambulatory till surgery was undertaken.

This patient was under observation for a period of two months after surgery. The lateral rectus palsy disappeared in the first post operative week. There was no more vomitting or headaches. Eye ground examination was conducted periodically by the ophthalmologists. Papilledema was observed during these two months although the patient was symptom free.

This case has a few common features with the previous one. Both the patients were treated with penicillin from the beginning of the infection. Does penicillin promote thrombus formation? There seem to be very divergent views on this question. Once again in this case an early myringotomy could have prevented mastoiditis. This patient had a little ear discharge but apparently the perforation was too small to afford adequate drainage. Here again I would like to stress the importance of early myringotomy and also enlarging pin point perforations that afford insufficient drainage. In this case too the sinus thrombosis was not suspected by the attending physician. The occasional headaches and vomitting and squint were not associated with a possible intra-cranial complications because the patient was ambulatory and free from temperature. To convince the mother that her child needed a major surgical procedure was very hard. Her family physician had advised only glasses for the eyes.

If this patient was not operated upon there might have been spontaneous recovery with more anti-biotic therapy. Dr. Day has reported four cases of what he calls "Silent Lateral Sinus Thrombosis". These four patients had never at any time before shown signs of sinus infections. Yet, at subsequent mastoid surgery organised thrombus was demonstrated. The other salient feature is the persistence of the papilledema without any symptoms of raised intra-cranial tension. It was observed for two months after surgery. We had occasion to see pailledema persist for up to four months after surgery in another patient.

Paresis of the 6th cranial nerve has been observed in two more cases of lateral sinus thrombosis at the Royal Victoria Hospital, Canada, during my stay. Petrositis is immediately associated with this symptom. On seeing these cases I feel that lateral sinus thrombosis should be considered in an otogenic complications with abducens palsy. Some neurologists claim that retrograde spread of phlebitis or peri-phlebitis from the jugular bulb along the inferior petrosal sinus causes inflammation around the Durello's canal causing constriction on the 6th cranial nerve. Others claim that oedema or congestion of one hemisphere of the brain causes that hemisphere to be pushed backwards in relation to the base of the skull with the resultant pull on the 6th cranial nerve which appears to be most vulnerable of the cranial nerves. This pull on the nerve combined with raised intra-cranial tension is a possible explanation for the abducens palsy. Once again in this case we find that very little was done regarding the pathology in the lateral sinus and yet the paresis cleared and the headache and vomitting ceased.

The explanation for the increased C.S.F. pressure seems contraversal. We have seen that the patients who underwent radical neck dissection for malignancy did not show papilledema. Yet a slow forming thrombus in the lateral sinus should cause marked papilledema seems incredible. Patients who had bilateral radical neck the section (on two different occasions) do not show papilledema. If ligature of the internal jugular vein does not cause a further increase in pressure I do not see why this procedure should not be undertaken routinely in cases of lateral sinus thrombosis. Ofcourse there are other channels for the spread of emboli into the systemic circulation. These include the anterior and posterior condyloid veins-especially the former which establishes anastomosis between the jugular bulb and the pre-vertebral plexes. Then there are the inferior petrosal sinus and marginal sinus. There are yet other channels but by ligation of the internal jugular vein the principal and the shortest channel between the sinus and systemic circulation is blocked.

There does not seem to be sufficient data to warrant using anti-coagulants routinely in lateral sinus thrombosis. In cases where the temperature does not respond to adequate anti-biotic therapy along with mastoid surgery the use of anti-coagulants may be justified.

Case No. 3.—Girl P. W. age 9 years was admitted to the Montreal Neurological Institute for complaints of right ear discharge, severe headache vomitting, squint and dimness of vision. These complaints were noted by the parent during the

few days prior to admission. This patient had a right ear discharge with severe pain about a month earlier for which treatment with penicillian was given until all the complaints subsided. The child apparently was normal following treatment and was attending school until the above symptoms appeared.

On examinatian the child was observed to have right lateral rectus palsy, marked papilledema and a low grade temperature. Lumbar puncture revealed a very considerable increase in pressure and a small increase in the cell count. The right ear drum showed a small perforation with thin discharge. Mastoid X-Rays revealed breakdown of the cells with clouding. A tentative diagnosis of superficial cerebral venous thrombosis was arrived at as no space occupying lesion was demonstrable. Patient was transferred to the E.N.T. Service treatment. Emergency mastoidectomy was performed. The X-Ray diagnosis of mastoiditis was confirmed. The lateral sinus wall appeared very much thickened with granulations on top. The sinus was exposed peripherily towards the Torcular till healthy dura was encountered. Needle aspiration did not produce any free flow of blood. The sinus was incised through a linear incision. Marked thickening of the wall was noticed. Only a thin flow of blood was encountered. The wound was packed and left open without sutures. There was considerable clinical improvement the next day. The severe headache had ceased and the temperature remained normal. The packings from the wound were removed on the 5th day and secondary sutures were put in. An eventful recovery ensued.

The papilledema persisted for over four months post operatively. But the patient was symptom free.

Once again in this case a child was treated for acute middle ear infection by penicillian. We do not know if adequate therapy was given. Anyway, the patient improved with penicillian only to fall sick at a later date.

All these cases call for a careful treatment of acute middle ear infections in children. There was sinus thrombosis in all three—yet none of the classical signs and symptoms were present.

Once again before I close let me emphasise the fact that early surgical drainage of acute middle ear infection in children is of paramount importance. If inspite of this procedure mastoiditis should develop—it should be recognised and surgically treated. In children treated with anti-biotics mastoiditis may not appear with the classical signs of post-auricular swelling, temperature etc. It is thus important that mastoiditis be suspected by the persistent low grade temperature, headache and history and be confirmed by good roentgenograms.

Tracheotomy in Bulbar polio and allied conditions

BY

Dr. S. JAIN, M.B., B.S.

In a recent epidemic of Polioymelitis at Toronto, the change of the attitude of the conservative Medical group towards doing early tracheotomy in fulminating cases encouraged me to put before this learned gathering a few words in favour of this simple procedure. In this and allied diseases where patient is liable to have no control over deglutition, the assurance that he will be free of respiratory complication for the coming desperate days is relief to all concerned.

Neuro surgeons realised the importance of maintaining the airway in a comatose or semi comatose patient as early as 1922. They found that autopsy findings in these cases were similar to the ones dying with respiratory obstruction. This view was confirmed during vast experience of casualities of second world war.

Physiology of Anoxia and its sequelae has been discussed in detail by Grey. Obstruction of the airway causes increased intra thoracic pressure and has cupping effect on the capillaries. The walls of these vessels become more permeable because of anoxia. This leads to congestion, stasis, oedema exudation, haemorrhage and even plugs with secondry atelectasis and, later infection. Of all the tissues brain tissue is least able to withstand anoxia. More so when it is weakened by the virus. According to Galloway anoxia of sixty seconds is enough to produce distinct morphological changes in the brain. It is now believed that changes previously attributed to encephalitis are result of anoxia. Grey also points out that acidosis may be a complication of asphyxia because of CO_2 and excessive production of lactic acid in muscle during anoximea. Maintainance of normal O_2 saturation of blood by artificial means is therefore not enough. The airway has to be opened to rid the blood stream of excess CO_2.

In bulbar polio conditions are ideal for production of anoxia.

(1) Inability to swallow results in accumulation of about $1\frac{1}{2}$—2 litres of saliva per day. Together with inflammatory secretions and food or vomitus it is enough to "drown the patient in his own secretions" unless cleared out.

(2) Due to lack of coughing normal exudate in tracheobronchial tree is not expectorated.

(3) Abductor paralysis of larynx or spasm due to accumulated secretions blocks the airway.

(4) Sjoberg has described what he calls "Angle symptons". He observes that angle between bottom of the mouth and anterior outline of the neck is extremely sharp in patients with Bulbar Polio. He observed that this compensated in the stage of convalescence. He postulates that this is due to paralysis of Anterior neck muscles and pharyngeal constrictors and tongue (nerves 10-11-12) on the one hand and contraction of antagonist muscles normally keeping the larynx in position (7th and 5th Mylohyoid, stylohyoid) on the other. The patient is in danger of being strangulated by his unparalysed muscles which pull the hyoid bone backwards and upwards.

These were the main features and similarity of autopsy finding of the brain tissue to that of anoxia which lead Harris to suggest the change of the name Bulbar Polio to "Respiratory polio" According to him Progressive anoxia with secretions in upper airway with unconciousness or progressive pronounced restlessness in patient who does not respond to other treatment in few minutes should have a tracheotomy.

Galloway deals with this in detail and suggests to keep following table of indications ready for reference.

(1) Progressing anoxia with secretions in the upper airway.

(2) Unconciousness and restlessness in a patient who does not respond to other treatment in few mintues.

(3) Pronounced restlessness or stupor in a patient in respirator even if paralysis is apparently of spinal type. Every case that goes in respirator should have tracheotomy.

(4) Fluid accumulation not otherwise taken care of in a respirator patient.

(5) Bilateral paralysis or spasm of vocal cords.

(6) Grave signs of vasomotor failure.

(7) Rapidly progressive bulbar symptoms.

(8) Inefficient attendants or equipment with doubts about keeping airway clean.

It is essential to recognise the stages of anoxia. Baker divides them in four stages.

I. Stage.—Restlessness, apprehension, anxiety and sleeplessness.

II. Stage.—Florid appearance and increasing pulse rate. Blood pressure and respiratory efforts due to anexia of the cortex which is followed by euphoria and speaking of few words in one breath.

III. Stage.—Dyspnoe, cynosis and occasional panic reaction.

IV. Stage.—Cynosis—circumscribed twelching, failure to answer questions, delirium. Coma and terminal shock.

Keeping these in mind tracheotomy should be performed before it becomes too late.

Tracheotomy becomes leisurely and easy procedure if a bronchoscope is passed before hand. We did not need any anaesthesia for this purpose. The procedure need not be discussed here in detail. Cummings has advocated horizontal incision and high (not above IInd ring), tracheotomy to facilitate the use of respirator. It is a matter of personal choice and no difficulties have been encountered in our cases, with vertical incisions.

Anaesthesia can be administered through the bronchoscope if a good anaesthetist is at hand. It is felt that this avoids undue strain of struggling to an already tired patient.

Tracheotomy is a "means to an end". Usual after care is much more important than the surgery itself. Repeated suction of both tracheotomy tube and mouth and avoidance of crust formation is essential. Humidity of the room should be kept high to avoid drying effect due to bypassing of nasal moisture effect. Cummings advocates use of positive pressure respiration if there is air hunger atelectasis or pulmonary oedema inspite of the respiration. Simultaneous positive and negative pressure respiration has reduced or eliminated pulmonary acidosis and has synchronised the patients respiratory rhythm when disturbed by excess of CO_2 accumulation or direct action of virus on respiratory centre.

There can be no hard and fast rules regarding decanulation. It is best to wait until patient has no tracheal secretion and can breath for 48 hours with tube plugged off and the patient is able to swallow without any spilling.

There are no harmful effects of tracheotomy and tragic cases are reported only when a desperate attempt is made to save a life in very late stages.

Bulbar Polio is one of the most important diseases falling in this group. There are few more that can be added.

(1) Acute infectious diseases—Bulbar polio, Tetanus, Botulism, Rabies. (2) Drugs and poisons specially Barbiturates and anaesthetics. (3) Central injury - Trauma, specially war wounds, tumours, vascular accidents, brain abscess. (4) Systemic diseases involving bulb—G. P. I. disseminated sclerosis, syringebulba, Gummata, Glasso labial paralysis. (5) Myasthenia gravis. (6) Neurosurgery and thoracic surgery.

In the year 1953-54 during my residency at Toranto I had an opportunity of looking after 27 cases who needed tracheotomy falling in this group suffering from following diseases :—

Bulbar polio	...	11
Tetanus	...	1
Head injury	...	3
Phenobarb poisoning	...	3
Following Neuro surgery	...	4
Following repair of tracheo oesophageal fistula	...	3
Following stricture oesophagus due to lye burn	...	2

Out of 11 cases of Bulbar polio it was indisputably life saving in six cases. One case died 12 hours after the procedures. This was a most toxic case seen and was in a moribund condition within 24 hours of the onset of disease. Two cases had atelectasis of the lobe some time after the procedure. Both cleared up after bronchoscopic suction using curved aspirator of clert. The average duration of maintaining the tube was about 34 days.

The case of tetanus died even with tracheotomy. It was also thought to be virulent strain as the disease developed even after the administration of A. T. S. within 12 hours of injury. In this case tracheotomy was performed rather late (after the onset of a bout of cynosis).

In head injury case two recovered within a week. Third one did not regain consciousness for about four months and finally succumbed to virulent strain of Staphylococci resistant to every known antibiotic except Ilotycin. First dose developed tension Pneumothorox after the tracheotomy. It was diagnosed immediately and air evacuated.

All the three cases of phenobarb poisoning recovered and wore the tube for the average period of three days.

Neuro surgical cases, two of acoustic neusoma and one of Chordoma recovered without any complication. Average period of tracheotomy was eleven days.

Out of 3 cases of tracheo oesophageal fistula repair only one died. He was a poor risk as he weighed less than 4 lbs. at birth. The success was only 40% in cases without tracheotomy in the babies above 4 lbs. birth weight at the same hands. The average duration of decanulation was 39 days.

Complete atesia of oesophagus following lye burn needed tracheotomy in two cases and this was maintained until oesophagus was dilated by Tucker retrograde bouginage and the patient able to swallow fluids.

CONCLUSION.

The indications for tracheotomy other than laryngeal obstruction have been discussed. The physiology of anoxia is described and the rationale of doing early tracheotomy is stressed. Cases have been reported to support the beneficial effects. It is felt that opposition if there is, is on the basis of prejudice rather than scientific fact.

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Cardiac Arrest Following T.A.R. Operation

BY

Dr. P. P. KARNIK (Bombay).

Very few of us get confronted with the condition of cardiac arrest during operation; though it can occur both under local and general anaesthesia and also to a most accomplished surgeon or to a junior most one. In a situation like this ones actions are guided by experience, and he will be successful if a definite plan of attack is thought of. The emergency is of a very serious nature and there is no time to waste. Poor training in general surgery generally precludes the members of our speciality from slitting open the abdomen or thorax.

Though recently quite good number of cases are reported, the relative incidence in throat surgery is quite low. The first case of cardiac arrest occurred in a girl of 15 years who was operated for ingrowing toe nail in the year 1848. Nichans was first to attempt the massage in 1889. But Starling published the first report of a successful case. In Lahey Clinic seven cases were reported in 13 years. In K. E. M. Hospital of Parel 12 cases are reported during the period of October 1952 to December 1954. The number of operations performed were 7753 out of which 1188 tonsillectomies were done. Out of twelve cases of cardiac arrest nine occurred during intrathoracic operations, one following T.A.R. operation and two under abdominal surgery.

Number of factors take part in precipitating this catastrophy. Hesler has mentioned them as, too rapid change of posture, decreased vital capacity, tracheal obstruction, poor oxygenation, anaemia, anxiety, insufficient atropine, accumulation of CO_2 and excess of anaesthesia. It is also stated that a damaged heart is more prone to this malady. To prevent the development of this dreadful complication following things should be rigidly followed :

(1) One must see that adequate pulmonary ventilation is present. There is no sure way than the operating with intratracheal intubation. People who advocate tonsillectomies under

open ether do argue about its dangers, but proper precautions will definitely prevent all these.

(2) Maintenance of adequate blood volume by avoiding bleeding and if necessary by transfusion.

(3) Deep anaesthesia should be avoided as far as possible as it is noted that sinoauricular node loses its preponderance as a pace marker and isolated ectopic beats develop if patient is too deep.

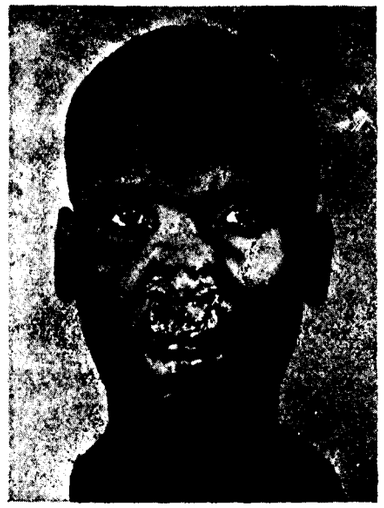
(4) Healthy heart does not succumb to abnormal laryngotracheal reflexes, but a damaged one and one which is under the influence of anaesthetic agent succumb too rapidly. Adequate atropinisation and allowing sufficient time interval following the injection will minimise the danger. Intubation should be avoided when the patient is too light under anaesthesia. A fatal case with cardiac arrest was reported where a simple removal of intratracheal tube was done while patient was coming out of anaesthesia.

(5) Selection of anaesthetic agent is also important. Cyclopropane should be avoided as it is known to produce cardiac arrythmias. Sodium pentothal sensitises the upper respiratory tract and abnormal laryngotracheal reflexes are followed on slight manoeuvre. It is stated that Chloroform is twentyfive times more prone to produce cardiac arrest than ether.

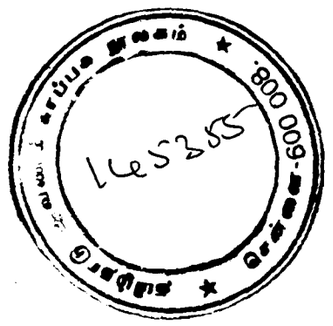
(6) Change of posture following the operation of T.A.R. is absolutely necessary. But it should be done gently avoiding any twists to neck region.

Thus analysing the causes in a case of cardiac arrest one will be able to attribute to a good number of circumstances. In short overdrugging or underoxygenation leads to this condition.

The diagnosis of this condition should be a matter of moment as prompt institution of treatment can save the life of patient by avoiding cerebral complications. Absence of peripheral and apical pulse and absence of B.P. are sufficient to warrant its onset. No time should be lost in taking B.P. or asking for electrocardiogram or even for consultation with other surgeons. He must act without losing any time as experimental proofs indicate that brain cannot tolerate more than five minutes of complete anoxia. Thereafter the damage is irreparable.



C. S. Hindu, Male (30 years of age).



Following the realisation of the extraordinary situation, one should start the resuscitation immediately. Airways should be maintained. Intratracheal tube should be reintroduced and 100% oxygen is insufflated through it. Further anaesthesia is stopped.

Injection of coramin should be avoided as it is a cerebral stimulant and increases the metabolic demands of the already O_2 depleted cortical cells, thereby causing further neurological sequelae or death, add thus it should be never used, in such cases.

Cardiac massage is resorted with an idea of reproducing to some extent the pumping action of the heart. This is easily obtained by squeezing the heart from apex to base and relaxing the grip. Average rate should be about 60—80 per minute and force used to be moderate. As regards the route, Johnson and Kirby have experimented in dogs and noted the cardiac output be mechanical force in postmortem case. By transthoracic route they could attain 60% of normal and by abdominal with cutting the diaphragm 35% and without cutting it 26%. Thus transthoracic route through 4th left interspace is advocated the best.

The other advantages with transthoracic incision are that of directness of approach—direct visualisation of heart which helps in noting the onset of vent. fibrillation. Similarly this approach facilitates direct injection of drugs and blood. The injection of blood in left vent. side is found to be essential in a case where cardiac arrest is to be done with a heart found to be empty.

The manipulation should have sufficient force to allow palpable pulse in the peripheral vessels. But must be moderate to avoid rupture of the heart. Compression against sternum helps the manipulation. If the manipulation is done within a reasonable time one will be able to detect that heart takes its own rhythm. But successful resuscitation after 8 hours of massage have been recorded. It should be continued till one is convinced that cerebral circulation has been adequate enough to prevent irreversible damage of the cortical cells. Routine opening pericardial sac is dangerous as it is time consuming and danger of damage to vagus and phrenic nerves and Johnson and Kirby have noted more traumatising effect to cardiac musculature in postmortem cases. Difficulties of closure of pericardium are also evident. Complete closure will lead to cardiac tamponade while

incomplete will lead to cardiac herniation. Other supportive measures which are advocated such as 5—10 c.c. of 1% procaine solution in cases of vent. fibrillation so as to depress the cardiac irritability. If vent. fibrillation is not precipitate then direct injection of 1 c.c. of 1 in 20,000 of Noradrenaline is indicated ; though it is argued that it increases the body need for oxygen. Even inspite of all these heroic measures one often finds to be a failure to revive the patient. The usual causes for them are—already lost time, poor aeration ineffective massage, retention of CO_2 and intrinsic heart disease.

CASE REPORT

A Christian male child aged 4 years was admitted for recurrent attacks of sore throat and suppurative otitis media.

Tonsils enlarged. Neck lymphnodes enlarged. Ant. inferior perforation both ears. Other systems—Normal. Temp. 97° F. Pulse 108/min. Resp. 24/min. Advised tonsil adenoid removal.

Pre-operative.—1/200 gr. atropine.

Anaesthesia.—Induction with Ethyl chloride spray and intratracheal ether.

Operation.—Tonsils were dissected in the usual way. Bleeding points were ligated. The intratracheal tube was removed and adenoids were scraped with a curette. On finding that haemostasis was perfect, patient was turned on his face. Surgeon palpated the pulse and found to be imperceptible. Immediately the patient was turned on the back. No heart sounds were auscultated. I was summoned from the next room. Resuscitation was immediately instituted. Intratracheal tube was reintroduced and 100% oxygen was forced in with positive pressure. Artificial respiration was continued.

Cardiac massage was resorted. The route chosen was per abdomen by left paramedian incision. Diaphragm was not cut open. Heart was found in a asystole condition. It was mechanically pressed against sternum. After four minutes heart started beating by itself which continued later on.

Temp. 102° F. Pulse 160/min. Resp. 24/min. The incision was closed in usual way.

Post-operative period.—After 2 hours pulse volume good. Respiration deep. When child was coming out of anaesthesia he had extension movements of the arms. Pethidine 50 mgs. intramuscularly was given. Child remained unconscious.

After four hours.—Child unconscious, did not react to painful stimuli. Pupils contracted Rigidity of all four limbs. Deep jerks were exaggerated. Plantars extension response. Eyeball rolled upwards.

After 10 hours.—Patient responded to painful stimuli. Pupils contracted, no reacting to light. Generalised hypotonia. Deep reflex absent.

Blood Pressure—95 60 mm. of Hg. After 25 hours—B. P. 90/60 mm. of Hg. Resp. 30/min. Patient was in respiratory distress. No cynosis—patient had generalised convulsions. Paraldehyde 2 c.c. I.M. Glucose 5% 300 c.c. Vit. C. 1000 mgms. I.V. After 30 hours—Patient cold and clammy. P.—? Temp.105° F. Patient expired after 34 hrs.

Post-mortem examination.—Haemorrhages in pons and medulla.

In analysing the above case report it is rather difficult to attribute the onset of cardiac arrest to any particular cause. At the same time the cardiac massage was started late by about 4 minutes, by which time the irreparable damage must have been already done to higher centres as shown by post-mortem report.

In conclusion I would like to pay tribute to my chief late Dr. S. G. Joshi, M. S. to whom I owe much. I would like to thank my new chief Dr. J. V. DeSa and my colleague Dr. R. L. Shah for valuable data, and the Dean, K. E. M. Hospital and Seth G. S. Medical College for permitting me to use the hospital records.

Scleroma

(A CASE REPORT)

BY

B. TIRUMALA RAO, F.R.C.S., D.L.O.

(Visakhapatnam).

Dr. Tulasidas and Dr. M. R. Chaddah (1954) reported two cases of scleroma in the Punjab and said that the disease is so uncommon in India that only seven cases were reported upto 1941. Dr. Rege (1951) said in his Review of ten cases from Bombay that the disease is quite prevalent in India, cases came from all parts of the country but no statistics have so far been published. Dr. Bhaskara Menon and myself (1941) presented a study of the disease in Visakhapatnam with a report of six cases. We also said at the time that cases existed but had not attracted sufficient attention from Indian workers. The cases which formed the basis of our study belonged mostly to the interior rural Oriya speaking tracts of the Ganjam and Visakhapatnam districts. It would therefore be true to say that the disease is met with in several parts of the country though infrequent. The importance therefore is very great of keeping in mind constantly the possibility of scleroma in the differential diagnosis of the upper respiratory passages as pointed by Drs. Tulasidas and Chaddah. In trying to lay particular stress on this point, I would like to place on record below one more case seen by me subsequent to our previous report, with a clinical photograph depicting the condition.

C. S. a Hindu male aged about 30 years from the Ganjam Dt. was admitted in the E.N.T. Wards of the King George Hospital Visakhapatnam, on 20—2—1942 with a complaint of obstruction to breathing and discharge from the nose for the last two years. He was a married man with three children, and there was no history of venereal diseases.

The bridge of his nose was injured by a blow 25 years back. He had been suffering from frequent colds for the last 15 years. Later an itching sensation developed in the left side of the nose.

He was operated at Rangoon for his nasal condition 4 years back. His voice was changed and was of the nature rhinolalia clausa.

On examination the alae nasi, the anterior nares and the region down below right upto and involving the upper lip presented a hard swollen appearance with thick raised edges and the surface covered by greyish white dirty crusted material. The anterior nares were completely occluded. The palate and fauces were thickened and of leathery consistence covered over by a dirty white film. There was also a chronic right dacrocystitis.

A biopsy was done and the pathology report was that it showed a chronic inflammatory granuloma with membranous plasma cells, some cells completely hyalinised and that it was suggestive of rhinoscleroma. And later it was also reported that Klebssiella rhinoscleromatis was isolated which absolutely confirmed the clinical diagnosis already made.

His B. W. R. was positive. He was given two bismuth and two N.A.B. injections. There was no apparent improvement of the local condition. The patient could not be persuaded to remain in the hospital for any further treatment.

I would like also to mention that I know of another case which was shown at one of the clinical meetings of the hospital demonstrating the beneficial effects of streptomycin, which appears at the present moment to be the best drug available in the treatment of this disease.

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A Case of Melanoma of the Maxillary Antrum

(CASE REPORT)

BY

Dr. S. R. SINGH

Ram Pyari 42 Hindu female was admitted on bed 44 ward 8 of G. M. Hospital with the following complaints :—

1. Swelling of the right side of nose, malar region, eye and upper lip—1 month.

2. Collection of blackish substance in the nose—1 month.

3. Headache—3 months. She gave history of having suffered from epistakis about a year back with profuse blood loss. Then she noticed some obstruction in the right nostril for which she consulted some doctor, where she was operated inside the nose for polypus and some fleshy thing was removed. She was relieved for sometime but again after two months she got some bleeding and pus discharge and obstruction in the right nostril. She also started getting headache. About a month back she observed a new fleshy substance in the right nostril which was dark, soft and tender This fleshy substance grew so quickly that it came out of the nostril. She also at the same time noticed a swelling of the right cheek, palate and the space between the right cheek and the gums.

On Examination.—An elderly lady, very weak, pale conjunctivae pulse 80 p.mt., B. P. 110/80, no lymphadenopathy, Liver and Spleen not palpable. There is a smooth uniform globular swelling about 3" in diameter in the right malar region involving the right lateral wall of the nose more marked over the centre. The skin is glaborous and stretched and could be moved over the swelling. The vascularity of the skin is not increased. The swelling is tender, soft in consistency and does not fluctuate. No pitting emptying or pulsation is present. The lymph glands are not enlarged. The right eye shows slight proptosis. The movements and reactions of both the eyes are normal.

Some pus can be expressed from the medial canthus of right eye. The right nostril is completely filled up with some bluish mass which is soft and freely mobile on all sides except in the lateral side where it is adherent. It bleeds totouch and is tender. The nasal septum is pushed to left side and the left nostril is also nearly occluded and the patient breathes through the mouth. There is a soft bluish tender swelling about 2" in length in the space between right cheek and gums. The bony palate also shows a swelling about 1" in diameter and is pushed in on the right side. Post nasal examination shows obliteration of the choanae with the same bluish stuff. Other systemic examinations N. A. D.

Blood Examination showed R. B. C. count of 3·8 millions with 90% Hb. W. B. C. count 69,000 with 56% Polys 39% lymphos and 5% Eosinophils. Urine Examination showed no traces of Melanin pigment in the Urine and was normal.

X-Ray Paranasal Sinuses.—Shows a dense uniform opaque shadow occupying whole of the right Maxilla, Ethmoids, Inferomedial portion of right orbit and almost the whole of nasal cavity. X-Ray chest showed no evidence of metasinsis in the lungs.

Biopsy.—Was done on 11—11—54 and a portion of the growth from inside the nose and cheek was sent for sectioning. The report is as follows :—

Both the sections have been studied. They show more or less similar appearances. The tumour mass is formed of proliferated groups and sheets of elongated Ovoid or Polyhydral cells containing darkly staining nuclei and Scanty Basophylic Cytoplasm. A large number of these cells enclose brownish black melanin pigment. At places the outline of cells cannot be made out because of heavy deposit of pigment. These cells show fair degree of anisocytosis and anisonucleosis. Intermingled in between these are a number of giant cells. The stroma is made up of thin collagenous tissue enclosing a number of newly formed blood vessels and shows infiltration by large number of chronic inflammatory cells. Portions of tumour tissue have undergone necrosis. Diagnosis—" Melanoma ".

Ligation of External Carotid artery on the right side was performed on 23—11—54 and the patient was given a course of Deep X-Ray Therapy : (250 r daily for 10 days). The tumour

did not show any signs of regression but on the other hand the pain and cachexia went on increasing. The patient was discharged on 17—12—54.

This case is being reported because though not a rare tumour only few cases of Nasal Melanoma are reported. Wilkinson (1912) reported 10 cases in literature. Tweedie (1933) found 26 cases in literature. C. G. Grace in 1947 could find only 66 cases of nasal melanoma reported in literature so far. St. Clair Stweart in 1951 has added 11 more to the list. No authentic record of any case of Melanoma of nose and paranasal sinuses is reported in Indian literature.

Though St. Clair Stweart mentions their incidence 4% of all malignant growths of nose yet they are not so frequently diagnosed perhaps because these tumours are not kept in mind usually, otherwise a pigmented tumour with pigmentation of Nasal Macosa should be highly suspicious since benign melanomata are not found in the nose. Most of these are partially removed in their early stages being mistaken for polyposis only to recur rapidly in an incurable form (like the present one).

They usually occur in Anterior and Lateral part of Nasal Chamber near the Mucocutaneous junction, lower part of septum, Nasal floor, Inferior Meatus and Inferior Turbinates, as a nodular plaque or sessile tumour or as a dull gray looking polypus presenting at the nostril bleeding on touch and rapidly recurrent, or as late malignant masses with polyposis, infection and secondary Necrosis. Involvement of Sinuses is a rarity and there is no erosion or expansion of Anterolateral wall of floor of the Antrum. There is only bulging of the nostril. The pigmented mass shows negative Prussian blue test for Iron and is insoluble in Conc. Sulphuric acid and is bleached by Nascent chlorine. It stains with silver Nitrate and shows a positive Dopa Reaction. Histopathology shows great variation in shape of cells with increase in size of the nuclei and Cytoplasm, Cellular Pleormorphism, Mitotic figures, Invasion of over lying epidermis by groups of atypical cells and unequal distribution of Intracellular pigment. They are deeply pigmented but may be unpigmented in a few cases (Amelanotic melanoma). In general malignant melanoma is the most aggressive of all tumours and has pronounced infilterating characters; it spreads widely by direct extension, Lymph vessels and blood stream. The Histogenesis of these tumours is the same as that of cutaneous ones i.e., from Melanoblastic Epithelium like that of epidermis. In

Fig. 1.

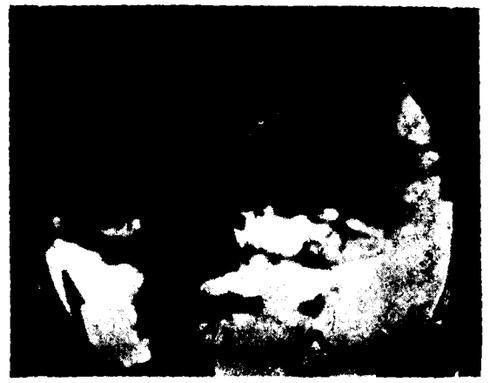

Fig. 2.

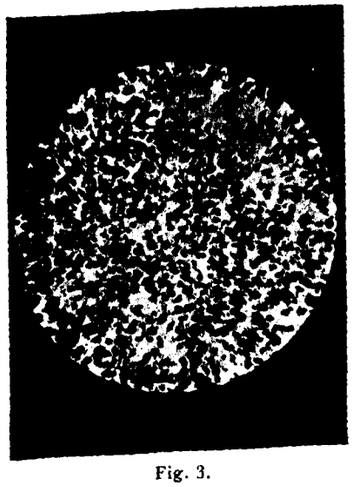

Fig. 3.

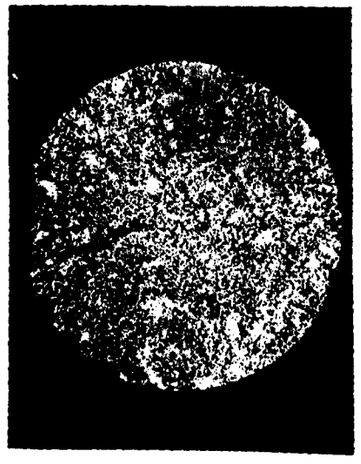

Fig. 4.

some cases this epithelium may be developmentally Heterotropic Epidermis or the epidermal Structures can be acquired by Metaplasia. Morever the Juxtacutaneous epithelia normally posses pigment-formative capacities and is shown by their pigmentation in Addison's Disease.

Special points in their symptomatology are the frequency of Epistaxis at the start and infrequency of pain until interference. The rate of local growth and metastasis is variable.

The prognosis is grave. As Miss Todd (1944) describes it "There is no greater tragedy in Medicine than the death from multiple metastases of a young patient who has been in perfect health until a small pigmented mole was removed for cosmetic reasons. Unfortunately ignorance regarding the great danger of interfering with any pigmented mole or birth mark still prevails and suffering and death result from inefficient treatment both by general practitioner and in hospital out-patients departments. The most important feature about these tumours is that unlike other tumours of nose they dont respond to radiation. Since they dont remain localised at the site of origin or in excisable lymph glands to warrant surgical excision, early radical removal is the only treatment offering chances of cure. J. S. Monro (1945) described a case where the patient survived for 7 years after repeated incomplete removals and repeated recurrence indicating very low degree of malignancy. This may be an exceptional case the usual course being partial removal.....rapid local recurrence.....extensive operation.....rapid generalisation and Death.

My thanks are due to Dr. R. N. Misra for permitting me to publish this case report.

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Surgery of Hypo-Pharyngeal Cancer

BY

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When one reflects on the recent advances in surgery of any part of the body one is naturally drawn towards the study of basis of its surgical evolution. This advance is obviously based on certain well recognised principles:

(a) Advances in the anatomical and physiological knowledge concerning the region of the body concerned. It is well known that unless we are quite familiar with the anatomy of a part the surgical approach for a corrective surgery remains unsatisfactory; for example, the recent advance in the newer knowledge about the segmental anatomy of the lung has been a forerunner of spectacular advances in pulmonary surgery. We owe Wilford Trotter (1931) the elaboration of anatomical knowledge and surgical approach to the pharynx.

(b) Advances in pathology : A clear understanding of the life history of the pathological lesions and the behaviour of the cells is absolutely essential for a scientific approach to its treatment.

(c) The control of sepsis has been the most important factor in the successful termination of an operation in the region of the pharynx—as indeed of any other part of the body. In the pharynx it had been shown by Trotter, almost a quarter of a century ago, that the infection of the pharynx was specially associated with infection of the teeth and the gums. In fact he was insistent on an oedentuous mouth if aspiration pneumonia and local infection of the operation area have to be avoided. Of course nowadays the antibiotics have changed the picture completely.

(d) The modern anaesthetics and the availability of blood have contributed their share to making surgery safe for the patient.

Evaluation of the Surgery of Pharynx.—The region of the body is the seat ot certain malignant disease which grows

Paper read at the Seventh Annual Conference of the Association of the Otolaryngologists of India, held at Amritsar, on 26th December 1954.

slowly, sometimes with few symptoms but with a sure and fatal ending if early measures for its relief are not undertaken. The reasons for backwardness in the evolution of the surgery of this region are due to the difficulty in early diagnosis and the lack of knowledge of the natural history of pharyngeal disease.

Anatomical-Subdivisions.—The pharynx proper (diagram I) is subdivided into two parts: oropharynx and the laryngo-pharynx. Above it communicates with the naso-pharynx. The laryngo-pharynx extends from the epiglottis above to the junction of the pharynx with the oesophagus below—at the level of 6th cervical vertebra. In order to study the malignant diseases of this region it is divided into two parts: Epipharynx above and hypo-pharynx below—the line of separation between the two being the level of the upper border of cricoid cartilage. In this paper we will confine ourselves to the region of the hypo-pharynx.

Cade (1949) has classified tumours of the pharynx into four anatomical groups:

(i) Tumours of the posterior wall of oesophagus.

(ii) Tumours of ary-epiglottis fold extending to epiglottis or arytenoid cartilages.

(iii) Tumours of the lateral wall of laryngopharynx and tumours of the sinus pyriformis.

(iv) Tumours of the hypo-pharynx situated:

(a) on the anterior wall—also called post cricoid cancer.

(b) on the posterior wall just above its junction with the oesophagus or in continuity with it.

We will be mainly concerned with the last group. This group has a special importance as its successful excision must necessarily include a definite plastic repair to replace the excised part.

Pathology.—The mucous membrane of the pharynx consists of stratified squamous epithelium. This mucous membrane is lying directly over the muscular coat on the anterior and posterior walls. In the lateral walls there is a layer of loose areolar tissue containing mucous glands between it and the muscular coat.

The vast majority of tumours in the pharynx are squamous cell or epidermoid carcinoma—most of them showing keratinising type with numerous cell nests. The first type are not radiosensitive and grow slowly. The latter type are very rapidly growing and radio sensitive. The lesions present are of the two appearances:

(i) Cauliflower type: common, very easily infected, may be pedunculated. Causes bleeding and stridor and the patient seek medical advice early. Has the best prognosis.

(ii) Ulcerative infiltrating type: has the worst prognosis.

The involvement of cervical glands occurs in all cases in the late stages but may sometimes occur early. The presence of infection predisposes to an early dissemination of the disease.

Clinical features.—The two main sites of cancer in the hypopharynx, though only a few centimeters apart, vary a good deal from each other.

Post-cricoid carcinoma is found more commonly or exclusively in women and the age incidence is early. Commonest age is fourth decade. Most of these cases give a prolonged history of spasm or Plummer-Vinson's syndrome with a history of dysphagia. Jacobsson (1951) has also emphasised the sex relation in the Scandinavian countries. The tumour arises from the mucous membrane lining the posterior ring of cricoid cartilage. It is invariably a squamous cell carcinoma, fungating in type with superficial ulceration. It is not visible on indirect laryngoscopy for quite sometime but has secondary diagnostic signs which have great value: a collection of mucus behind arytenoids, oedema of arytenoids, fixation or diminution in the mobility of one cord, and in the later stages the edge of an ulcer or a papillary mass becomes visible. These signs are accompanied by dysphagia, expectoration of mucus in saliva, frothy mucus with streaks of blood. This may be followed by alteration in voice due to fixation of arytenoids. In late cases there is broadening of larynx with a forward displacement.

Lesions of the posterior wall.—Occur at a slightly lower level at the junction of pharynx with the oesophagus. These are found most commonly in men at the age of 50 or 60. They spread into the oesophagus or may have grown from the oesophagus into the pharynx. This lesion may be restricted to the posterior wall or may surround the lower part of pharynx.

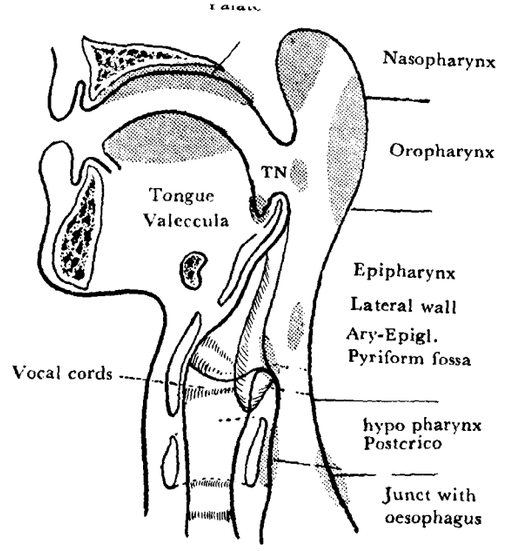

Diagram 1.

Diagram showing the anatomy of the hypopharynx (From Cade).

A Pool of Mucus. Oedema of Arytenoids. Upper Edge of Lesion is Visible.

Diagram 2.—Diagram showing the condition of the hypopharynx seen on direct laryngoscopy (From Cade).

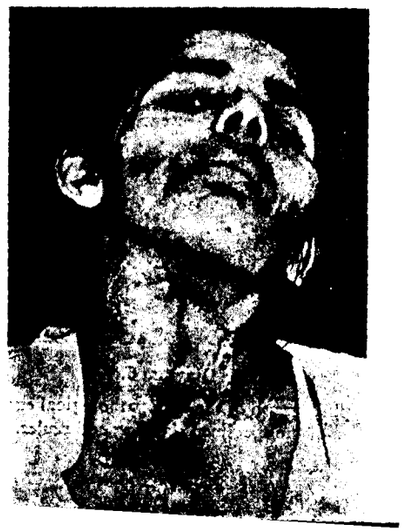

Diagram 3.

Photograph of the patient afte 1st stage of Wookey operatior

Diagram 4.
Photograph of the patient after completion of Wookey operation.

Diagram 5.
Photograph of the specimen removed at operation.

Diagram 6.
Micro-photograph of the histopathological examination of the specimen showing cell nests.

Metastasis —Jacobsson (1951) has shown that 54% of cases show enlarged glands in the neck when they first report for treatment.

Diagnosis.—Depends on the correct evaluation of the early symptoms which have been already mentioned. Importance must be attached to sensations in the throat and dysphagia. Discomfort in the throat with frothy mucus and specially if tinged with blood demands a thorough examination. Dysphagia as the first symptom is quite characteristic of cancer of hypopharynx. This may be followed by cough, necessity for cleaning of throat and pain. Enlargement of glands in the neck may occur early in some of these cases.

Clinical examination.—Examination of the neck for any enlargement of cervical glands, their position, consistency and fixation are important. Palpation of the neck may reveal a widening of larynx laterally and a forward displacement of thyroid and cricoid cartilages. This should be followed by examination of the mouth, tongue and teeth. Examination with a laryngeal mirror will show the early signs.

SPECIAL EXAMINATION

Radiological investigation includes plain x-rays and barium studies. Air acts as a contrast medium and a plain x-ray is of special value in cases of hypo-pharyngeal cancer. A lateral view will show a displacement of the larynx and an ovoid tumour may be seen in front of the vertebrae. It may also show the narrowing of the trachea and its lateral displacement. In fact a good radiogram may show the lower extent of the tumour and its encroachment on the neighbouring structures. Barium studies show a T-shaped disposition of barium and narrowing of the lumen of the pharynx.

Endoscopic examination shows the extent of the lesion below the arytenoids and permits a biopsy for histo-pathology. Endoscopy is specially useful if radiographs do not reveal the growth.

Method of treatment.—The lesions involving the hypopharynx have a tendency to remain localised and its metastasis are frequently limited to the cervical lymph glands. Thus it lends itself to a successful surgical treatment. Besides the results of radiotherapy are not very satisfactory. Many years ago Trotter (1928, 1934) described the surgical approach to the removal of malignant disease of the larynx. He laid down certain principles and emphasized the control of sepsis which takes

two forms: the infection of the neck wound and of the lungs; the former was responsible for severe secondary haemorrhage and the latter for aspiration pneumonia and pulmonary suppuration. He attached very great importance to the eradication of sepsis in the mouth, specially dental sepsis.

In the neck he advised the stitching of sternomastoid, after resection of the larynx and gland dissection in the neck, to the prevertebral muscles medial to the carotid sheath to prevent the septic material from reaching the vessels. The preservation of the function of the larynx is not possible in the majority of cases. Most of the surgeons who have experience of many cases advise the resection of larynx, i.e., a pharyngo-laryngectomy.

The restoration of function has been made possible by the operation of Wookey (1947). He reflects a large quadrangular flap of skin, including subcutaneous fat and platysma, from the front of the neck, with a wide base. The lower half of the stenomastoid is removed but the upper half is preserved to safeguard the blood supply of the flap. The carotid sheath is preserved. The isthmus of the thyroid is divided and the lobe of the thyroid on the side of the operation is removed after ligating the superior and inferior thyroid arteries on that side. The trachea is divided below cricoid cartilage. It is separated from the oesophagus. A transverse incision is made into the pharynx just below the epiglottis and the inside of the pharynx is viewed. The oesophagus is now divided above the sternum and the larynx and pharynx are removed enblock.

Reconstruction is achieved by a plastic operation by stitching the skin flap to the pharynx above and oesophagus below and forming a grooved tissue or sulcus in the neck. Three months later this is completed into a full tube. A tracheotomy tube is attached to the trachea for a few days. The reconstruction of the oesophagus permits the early development of an oesophageal voice. If repair is delayed the patient acquires a whispering speech.

Own and Lewis (1952) have suggested the use of a U-shaped flap instead of the quadrangular Wookey's flap. Recently splints made of tantalum gauze and covered with split thickness skin graft have been suggested by Edergton (1952), and of polythene mould by Negus to bridge the gap between the pharynx and the oesophagus.

CASE REPORT

Ram Kaur, aged 35 years, was referred from E. N. T. Hospital on 10—11—1953. She had dysphagia of 3 months' duration. To begin with dysphagia was slight becoming apparent only after solid foods but within 3 months it increased rapidly, so much so that even fluids could not be swallowed easily. There was no accompanying dyspnoea or obstruction to respiration. Her appetite was completely lost and she was markedly reduced in weight.

On physical examination anaemia was apparent. Hb.—55% and glands were palpable in the neck.

On 13—11—1953 gastrostomy done.

Wookey's operation on 28—1—1954. Cervical oesophagectomy, complete laryngectomy and partial thyroidectomy was done. Post operative recovery was uneventful.

2nd operation on 9—3—1954. Oesophagoplasty was done but even after that she was unable to swallow anything even fluids although repeated dilatations of the cervical oesophagus were done. After sometime a small gland appeared just above the operated area in the neck and started enlarged. It was considered to be a secondary from the primary growth but after removal histopathologically only evidence of chronic inflammation was found.

She never took anything by mouth because of inability of the food or fluids to pass through the cervical oesophagus. On the other hand leakage of contents would take place through it. She was discharged on 22—9—54. A few months later she suddenly collapsed while at home after having brought out lot of purulent material from the mouth (probably because of aspiration into lungs)?

CONCLUSIONS

The treatment of cancer of the hypo-pharynx and the upper end of oesophagus has come into prominence in recent years. Certain points in the surgical management of these cases are emphasized.

(1) An early diagnosis of this condition can be made on early signs of dysphagaia, irritation of throat, with changes in voice and bringing up of mucus and blood. A laryngeal mirror may not show any lesion in the early stages.

(2) Help of radiology and endoscopy is very valuable in an early diagnosis and hence in treatment.

(3) Control of sepsis is a very important factor in achieving success.

(4) After an operation of the magnitude of pharyngolaryngectomy, early reconstruction of the oesophagus by Wookey's technique should be obtained to train the patient in acquiring an oesophageal voice.

(5) Recently primary reconstruction of the oesophagus has been suggested by the use of split thickness graft over a splint made of tantallum or of polythene funnel shaped tubes.

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7. Wilferd Trotter : Operations for malignant disease of pharynx. Brit. J. Surg. 16 : 485, 1928.
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DISCUSSION

Dr. C. A. Amesur (Bombay) said that in such cases it is better to take a laminogram to see the extent of caricnoma. At the time of the operation two pints of blood with 250 mgm. aureomycin (now Achromycin) should be given by transfusion method. Occasionally the skin flap with a hairfollicle in it, grows hair in the plastic hypo-pharynx, and causes tickling sensation. This should be burnt when necessary.

These people should be taught oesophageal speech by swallowing air for a week before the Operation, so that when larynx is removed they are able to have useful speech.

Dr. J. K. DATTA

Association Notes

LATE Dr. J. K. DATTA, F.R.C.S. (EDIN.)

Dr. Jatindra Kumar Datta was born on 14th January 1892, at Dacca, where he had his early schooling. He was fond of the Association foot ball, which he continued at the Calcutta Medical College, for whom the helped to win the Elliot Foot-Ball Shield. At that time he won the Best Man's Medal in foot-ball.

He passed his M.B. (Calcutta) in 1915 and inspite of the First World War he proceeded to the United Kingdom and passed his L.R.C.P. (Lond.), M.R.C.S. (Eng.) in 1918. Thence he went to Edinburgh and passed his F.R.C.S. with Oto-Rhino-Laryngology as special subject in 1920. It was at this time, when I was holidaying in Scotland that I came across the smiling young Datta full of hopes, which were subsequently realized in the undivided India.

He worked as a Casualty Officer and House Surgeon at Sheffield Royal Hospital, David Lewis Northern Hospital (Liverpool) and New Royal Infirmary (Cardiff) besides being Assistant M.O. in charge of Sheffield and Cardiff Venereal Diseases Clinics. Finally he settled down at Manchester as a General Practitioner with Panel Practice. He tried to look up his Friends at London, but I had gone to Torquay (Devonshire), so missed the opportunity of meeting him in 1922, when he sailed for India.

He joined the Carmicheal (now renamed as R. G. Kar) Medical College in 1923 as Visiting E.N.T. Surgeon, and soon became Professor of E.N.T. Diseases. From this post he retired in 1954. He was a Visiting Surgeon to Sambhunat Pandit Hospital for a few years from 1925. He was also a Visiting E.N.T. Surgeon at the Chittarajan Hospital 1930-'53.

He was an examiner at M.B. (Calcutta) for ten years and at Gauhati for two years. He was an M.S. (Andhra) examiner for 1953-'55.

He was appointed an Inspector for Oto-Rhino-Laryngology by the Medical Council of India for M.S. Bombay in July 1953, which duties he carried out very well indeed.

I approached him in 1947 to join as a Founder Member of the Association of Otolaryngologists of India, whose Inaugural meeting was to be held at Bombay at X'mas 1947. But he was too busy with the cruelties of the Partition of Bengal as he was born in East Bengal, where he had lots of landed property which is lost to the Family. At this stage only Dr. S. Roy, M.P. joined us from Bengal. I again approached Major K. K. Ghosh, Major Dutt and Major Chatterjee to hold a meeting at Dr. S. Roy's place to form a Calcutta Branch in February, 1951. At this meeting Dr. J. K. Datta joined whole heartedly and was elected as a member on its executive Committee. They named the Branch as West Bengal State. At our Fourth Annual Session, held at Calcutta, he was elected as the Chairman of the Reception Committee, but on account of indisposition was unable to deliver his address, which was read by Major K. K. Ghosh.

He had given a lunch party to the delegates at the Great Eastern Hotel, on 18th December, 1951 and I was delighted to meet him once again after a lapse of 31 years. Thereafter we met frequently at the various places in India e.g. Bombay, Waltair, etc. etc., where I found him to be religious and take interest in the Ramakrishna Paramahamsadeva missions, and give discourse on his teachings.

He was a member of the Indian Medical Association and a Chairman of the Board of the Directors of the Hindu Family Annuity Fund, Calcutta.

He published the following scientific papers :—

(1) Cases of Fibro—Myxoma and Fibroma of the Right Vocal Cord of the Larynx (Calcutta Medical Journal December, 1923).

(2) Operative Treatment of Chronic Frontal Sinus Suppuration (Same, September, 1925).

(3) Ear Nose and Throat Diseases among Calcutta University Students (Indian Medical Gazette, April, 1926).

(4) Three cases of Tumours of the Larynx (Calcutta Medical Journal, August, 1926).

(5) Some Acute Nasal Conditions Cohimsirty Sear in General Practice (Indian Medical Association Journal, July 1936).

He married Kumari Nivamayee Guha in July 1916. At the Calcutta Conference I found her to be a great source of strength to him, and a very entertaining lady delegate. Jatindrababu had told me that she was a source of inspiration to him and were not only living a very happy life; but was looking after the Children very well indeed. I hope now she will look after them, much more, till her two sons return from U.K.

He had a mild Heart attack before coming to Waltair in May 1954, but had frequent ones since August 1954. He had an attack of Coronary Thrombosis on 17th January 1955, which ended in cerebral Haemorrhage and his passing away on 19th January 1955. We pray his soul to rest in peace.

He leaves behind in sad bereavement his widow, two sons, who are at Manchester (For Industrial Administration) and Glasgow (For Electrical Engineering) and two daughters one married a few years back and a Kumari who is at the Government Arts College beside a grand son. Let them find solace in the fact that their grief is shared by many.

C. A AMESUR.

"Dr. S. G. JOSHI MEMORIAL FUND"

K. E. M. Hospital, Parel, Bombay 12.

30th March 1955.

Dear Sir,

It has been proposed to raise funds for a fitting memorial to the late Dr. S. G. Joshi, M.S., Honorary Ear, Nose and Throat Surgeon, K. E. M. Hospital, Bombay who died on the 2nd December, 1954, after an heart attack at the premature age of 46 years.

Some after his death the leading members of the medical profession and surgeons working in the E. N. T. speciality in particular met and with the help of some of his friends and admirers formed a Committee for this ' Dr. S. G. Joshi Memorial Fund.'

The late Dr. S. G. Joshi made a mark in the history of Ear, Nose and Throat Surgery in India by his great industry and devotion to the speciality. He had many research problems in view and he was getting young assistants in his department who were working for postgraduate qualifications in this specially interested in those problems.

We feel that this Fund will have achieved its purpose if by its help we will be able to set up a Department of Audiology and start an Annual Oration on some original work done in the branch of Ear, Nose and Throat Surgery. The requirements for the Department of Audiology are as under :—

1. Sound Proof Room.
2. Two Audiometers with Peep Show.
3. Galvanised Skin Audiology.
4. Caloric Estimation Apparatus.
5. Speech Rehabilitation Centre.

The approximate cost of the above requirements will be about Rs. 75,000 and for the Annual Oration we will have to keep aside a sum of Rs. 25,000. So the target for this Fund will be a lakh of rupees if not more.

The Department of Audiology once fully developed will be a great boon to many dumb and deaf subjects. As a result of the investigations it would be possible to find out the cause of deafness and also to train them with appropriate speech therapy. The Audiology Department will be able to help in the early diagnosis of certain types of brain tumours which may mean a life saving measure to many patients.

We send out this Appeal to those who are in a position to pay handsome donations and thus enable us to fulfil our ambition of doing some constructive work towards the progress of E. N. T. Surgery in India.

Yours faithfully,

S. G. VENGSARKAR, M.D., F.C.P.S. (BOM.),

Dean, K. E. M. Hospital, Bombay,

Chairman, Dr. S. G. Joshi Memorial Fund Committee.

N B.—Please note that cheques should be crossed and made payable to " Dr. S. G. Joshi Memorial Fund ".

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PROVISIONAL PROGRAMME VIII ANNUAL CONFERENCE
OF THE
Association of Otolaryngologists of India
(TRIVANDRUM SESSION DECEMBER 1955)

Thursday the 29th December, 1955

Meeting of the Governing Body (evening time)

Friday the 30th December, 1955

Morning ... (1) Registration of Delegates
(2) Opening address
(3) Inauguration of the Scientific Session
(4) Presidential Address
(5) Vote of thanks
(6) Members Photograph
(7) Exhibition of the exhibition
Lunch Interval
Afternoon ... Scientific Session
Evening ... Presidential Dinner

Saturday the 31st December, 1955

a.m. ... Scientific Session
p.m. ... Scientific Session
Evening ... Subscription Dinner

Sunday the 1st January, 1956

a.m. ... General Body Meeting (Business Session)
a.m. & p.m.... Local Sight seeing

Excursions can be arranged for 1st, 2nd or 3rd January, 1956
Social engagements will be published in the next issue

Scientific Papers:

1. Experiences in Fenestration : Dr. R. A. F. Cooper
2. Problems of deflected Nasal Septum
   (a) Dr. G. Narayanan
   (b) Major K. K. Ghosh
3. Symposium on Allergy :
   (a) Nose : (i) Dr. Tulsi Das
   (ii) Dr. Vithal
   (b) Naso-pharynx : Major M. M. Nath
   (c) Ear : Dr. V. Subramanian
   (d) Larynx : Dr. R. V. Rao

Short Papers:

1. Retropharyngeal Abscess: Dr. K. L. Pathak
2. Eighth Nerve in Flurosis: Dr. R. V. Rao
3. Removal of Chorda Tympani Nerve for Tennitis: Dr. R. A. F. Cooper
4. Further trials of cortisone in submucous Fibrosis: Dr. R. V. Rao
5. Granulations in External Auditory meatus: Major M. M. Nath

Members are requested to inform me by 31st July 1955, the Title of the short paper they wish to read. Summary of the Paper be posted to me by 29th October 1955 and a copy of the manuscript by registered post by 29th November 1955; so that a detailed scientific programme is fixed for Trivandrum (Dr. C. Satyanarayana, Dr. L. Hiranandani, Dr. Dhukan Ram and Dr. DeSa intend reading short papers.)

C. A. AMESUR,
Honorary Secretary, 8, Jorawar Bhuwan,
93, Queens Road, Fort, Bombay-1.

SIXTH INTERNATIONAL CONGRESS OF OTOLARYNGOLOGY

The Sixth International Congress of Otolaryngology will take place in Washington, D.C., from Sunday, May 5, through Friday, May 10, 1957, under the presidency of Arthur W. Proetz, M.D. The subscription for Members is $25·00 (U.S.A.) which will include all official meetings of the Congress except the banquet. Ladies and other relatives accompanying members may be registered as Associates at a fee of $10·00.

The selected subjects for the Plenary (Combined) Sessions to be held Monday, Wednesday and Friday mornings will be:

1. Chronic Suppuration of the Temporal Bone.
2. Collagen Disorders of the Respiratory Tract.
3. Papilloma of the Larynx.

Outstanding internationally recognized authorities will open the discussion of each of these subjects.

Two types of communications are invited: (1) Contributions to the discussions of the selected subjects, limited to 5 minutes. (2) Original papers, limited to 15 minutes. These should be in one of the four official languages: English, French, German, Spanish.

Motion picture films will be shown continuously except during the Plenary Sessions. There will be both scientific and technical exhibits.

An interesting program of tours, social functions and visits to points of interest in and around Washington has been arranged for the Associate Members.

For further information please address the General Secretary, Paul H. Holinger, M.D., 100 N. Michigan Ave., Chicago 11, Ill., U.S.A.