

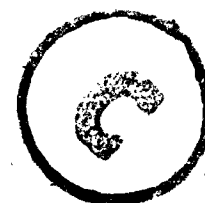
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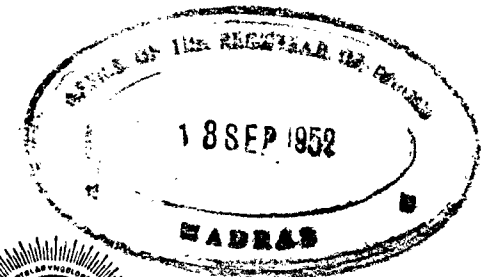
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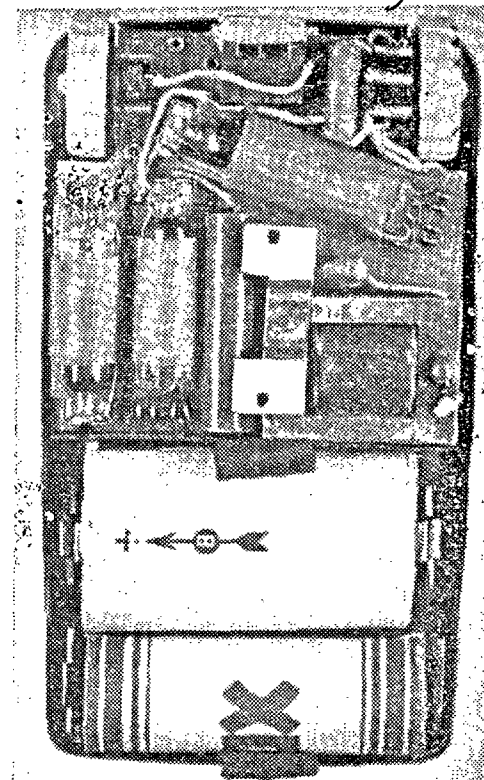
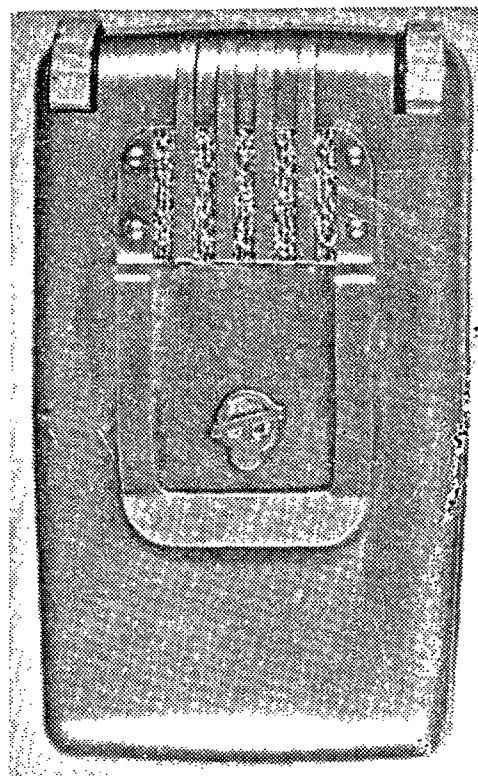
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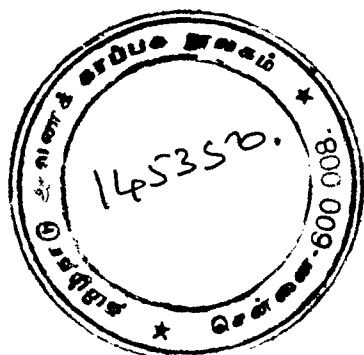
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CONTENTS

Nasopharyngeal Fibroma Dr. P. N. Sinha, Patna.	1
Brain Abscess Dr. L. Hiranandani, Bombay.	17
Some Experiences in Ethmoid—Cell Variations Dr. C. A. Amesur, M.S. (Lond.)	27
Abstracts	29
Association Notes	35

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No. 1

Nasopharyngeal Fibroma

BY

Dr. P. N. SINHA, Patna.

Historical:—No authentic account is obtained in old literatures about nasopharyngeal fibromas as such but they are all mentioned mixed with other tumours and conditions causing nasal obstruction. Real scientific record of these cases have been recorded in 20th century.

This tumour is histologically benign but clinically malignant. It is a disease of Tropics and hence its data in western countries is meagre. They are not common in England, America and continents but very common in India and quite common in Bihar. I do not know how our figures compares with that of other States in India.

Nomenclature:—It has been described by various names, viz. (a) Nasopharyngeal fibroma (Common). (b) Juvenile basal fibroma (Fig). Other names are—naso-pharyngeal polypus; fibroid tumour of the pharynx; fibroid tumour of the base of the skull; fibro-angioma of the nasopharynx retromaxillary polypus.

Situation:—They take their origin from the periosteum of basi-sphenoid, fibrous tissue of nasopharynx, basilar fibro-cartilage, inner surface of pterygoid lamina, front of bodies of upper cervical vertebrae.

Size:—Their size vary from a small nut to that of a fist of man.

Shape and Consistency:—They are hard and broad based tumours protruding from the nares and they cannot be moved. They may have secondary attachments specially if there has been unsuccessful attempts to remove them. Protrusion of the tumours is from one nose generally but both nostrils are blocked because septum is pushed towards the other side and thus occlude the other foramina. They may protrude anteriorly in nose, posteriorly towards vertebra and pterigo-palatine fossa, and above to basisphenoid, below in pharynx. Sometimes it is pushed in the cheek. In two of my series such protrusion in the cheek was present.

Nature:—The tumour erodes the bones and thus causes destruction of bone and may perforate it causing serious trouble.

Age:—Generally 10 to 20 years, although the tumour may start early and may undergo spontaneous evolution later.

Sex:—Generally male. There were three cases of female in my series. A girl is still lying in the ward. She has not been able to be operated because of her extreme anaemia and low condition. Tracheotomy has been done.

Pathology:—It consists of fibrous tissue with preponderance of blood vessels. Vessels are of two distinct types:—One is of primitive type and takes origin along with the tumour and the other arises as the tumour grows. There is no capsule of the tumour. Round cells resembling embryonic sarcoma cells are found in between connective tissue. Sometimes base is small and sometimes it is broad. It generally grows from fascia basalis which is formed by junction of pharyngeal aponeurosis and bucco-pharyngeal fascia. According to Negus there is no glandular involvement and no secondaries, but in some cases where there is extreme anaemia I have seen gland involvement in the neck. The tissue on which it grows undergoes pressure atrophy including bone.

Symptoms:—These are three main ones—Nasal obstruction, epistaxis, extreme degree of anaemia. Besides these there are other symptoms also, e.g., headache, buccal voice—dead speech or rhinolalia clausa, anosmia, loss of appetite, ear complications—otalgia, deafness, ear discharge, nasal discharge with bulged nose 'frog face', eye symptoms—epiphora, diplopia, exophthalmos, optic atrophy and sometimes protuberance in cheek.

Signs:—Anterior rhinoscopy—Tumour is seen appearing red and vascular through one nares and the other nares may be pushed to one side. Tumour may protrude outside the nares. There may be offensive discharge. Tumour may be pushing the hard and soft palate. Breath is foul and offensive. Posterior rhinoscopy—Red lobulated, sessile growth is seen with bleeding points. It bleeds on touch.

Prognosis:—Growth, if big, may end fatally due to anaemia, respiratory failure etc. or may undergo spontaneous in evolution.

Differential Diagnosis:—Antro-choanal polyp—It is unilateral and of greyish look with absence of epistaxis and anaemia. Digital examination is diagnostic. Fibroma—comes after the age of 25. Fibro-sarcoma—Definite diagnosis can be done only by biopsy. Epithelioma—Age is above 40 years. Glands are enlarged.

Discussion:—Authentic record of their incidence has been worked out by Figi. 63 cases were reported by him from 1910 to 1940, a span of 30 years. Shaheen reported 58 cases in 1930. It is very good record for a single individual. The age incidence as given out by Shaheen was 2, 4, 7, 48, 60 and 70 years. He had seen some carcinomatous changes in some and hence cases were not all pure fibromas. In the present series I am reporting 46 cases from 1940 to 1951, in 12 years.

Rao of Vizagapatam saw 17 cases in 15 years (1927 to 1941) Martint Blady (1941) says that these tumours form 2% of all malignant growths of the body. Digby (1941) says that these tumours are quite common in China (Hongkong).

Following is a review of the cases seen by me at the Patna Medical College Hospital.

Age incidence is given in a tabular form, viz.

Age	No. of cases.	Percentage
5 to 11 years	4	8.7
12 to 16 years	13	28.3
17 to 25 years	19	41.3
26 to 40 years	9	19.6
41 to 45 years	1	2.2

The youngest patient in this series was a child of 5 years and the oldest was a man of 45. The maximum number of cases were seen between adolescence and adult age, that is 12 to 25 years, comprising of 32 cases out of 46 (65.2%). Over one third (19 cases 41.3%) of all the cases seen were between 16 and 25 year. This observation fits in with the prevailing view about the condition that nasopharyngeal fibroma occurs in young adults and attains its maximum peak by the 25th year, whereafter its incidence falls. The tumour is said to undergo atrophy after that age. Still we have on our record 9 cases (27.2%) occurring between the ages 26 and 45 years. Most of the cases were diagnosed on clinical evidence alone, and it is likely that some of these might have turned out to be of some other type of tumour on microsection.

Sex :—In the series under review the sex incidence was like this :—Males 43 cases 94%. Females 3 cases 6%.

This finding is also consistent with the known fact that nasopharyngeal fibroma is more common in males. This is yet to be established as to why the disease has special predilection for the male sex.

Case Review :—8 cases have been reviewed in detail and the following observations have been made :—

Presenting symptoms :

Nasal obstruction	 6 cases.
Epistaxis	 5 cases.
Respiratory distress (Tracheotomy done)	 2 cases.
Bulging of soft palate	 1 case.
Altered voice	 2 cases.

Nasal obstruction and epistaxis were most often present together. The cases with respiratory distress were so advanced that urgent tracheotomy had to be done in both the cases, one of them was a child of 5 years. Duration of illness before seeking medical advice—varied between 6 months and 2 years. Family history of similar nasal disease was negative in all the cases.

General Condition :—Since most of the cases come some months or even years after suffering they are invariably run down in health and anaemia is marked. The degree of cachexia is variable according to the age of the patient and severity of symptoms. The patients bear an anxious toxic look. It appears they have been suffering from chronic toxæmia.

Blood examination revealed a count of R. B. C. 2 to 5 million per cu.mm. and Haemoglobin from 50% to 80%. In some cases there was a polymorphonuclear leucocytosis suggestive of secondary infective process. Allergy does not seem to have special role.

Local examination :—The characteristic frog-face appearance is seldom seen though it was present in one of the cases. But a varying degree of proptosis of one or both eyes may be seen in fair number of cases as well as the broadening of the nose—which contribute to the characteristic facies.

The stigmata of mouth breathing were frequently seen as dry-mouth, spongy gums, dental caries and tartar, chronic pharyngitis and sometimes bronchitis, affections of the middle ear and narrow palate etc.?

In some the growth was seen protruding through the nose either in one or both nostrils to a variable extent and mimicked a nasal polyp. The surface of the growth is frequently covered with a brown or blackish-brown scab which when taken away starts the bleeding.

The growth is frequently easily seen hanging from the nasopharynx behind the soft palate. It may extend above the palate in which case the palate is seen bulging into the mouth.

Investigations:—Besides the routine blood, stool and urine examination no special examinations were performed. Biopsy was not done in any of the cases. Nasopharyngeal fibroma is the only tumour of the nasopharynx in which biopsy is seldom done to confirm diagnosis.

Treatment:—In general all the cases were treated surgically, excepting the child, 5 years old, who was treated with radium implanations, 55 mgm. for 22 hours interstially each week after a preliminary tracheotomy. After three such treatments the case was put under Deep X-ray exposures as the reaction to radium applications were severe. Unfortunately the patient went out of observation and further follow up could not be made.

In the remaining cases operative removal was performed. In two cases a preliminary tracheotomy was done to relieve or obviate respiratory distress. In each case blood-transfusion ranging from 200 to 500 c.c. was given pre-operatively and post-operatively. Open either anaesthesia was used in each case. After a preliminary digital examination of the nasopharynx, attempt was made to dislodge the growth from its base. In this effort no sharp instrument was used. Digital dissection aided by a wagnuc has been found to be quite satisfactory. To have best results the growth should be removed en masse, else when a fragment is removed a massive

haemorrhage is set which makes the subsequent removal a more difficult task. Once the detachment of the tumour is done it is easily removed through natural routes, either per mouth or through the nose. The other technique requiring splitting up of the soft or hard palate or the sublabial approach of Denker were not required in any of the cases.

The haemorrhage after the operation is effectively controlled by anterior and posterior nasal plugging with liquid paraffin gauze strips. Though the other general measures to control the bleeding must not be ignored in any case.

Other post operative care include administration of penicillin whenever indicated to control any existent or subsequent sepsis. No instance of delayed haemorrhage was ever seen.

The patient must not be allowed to go out of observation until his blood picture has sufficiently improved by suitable haematinics and he has recovered his self.

With all the care that could be taken of the cases, the author can submit that with blood transfusion as our aid we can dare treat this bloody condition with surgery.

Here I must mention to you some my lapses in my series. I, lost one case on the table. I don't know if he died due to anaesthesia or due to the fault of the surgeon. It was in 1941, when I was young in my profession. I lost another case in 1943 when haemorrhage could not be controlled on one of the subsequent dressings. At that time blood transfusion was not adequate in my institution and I think the patient could have been saved if transfusion could be arranged.

Some pitfalls in operative work:—Once I was doing a nasopharyngeal fibroma privately. It was in 1944. I had diagnosed the case to be an antrochoanal polyp. All the instruments for removal of fibroma were not present. At the operation severe bleeding started. By packing the bleeding was controlled and the operation postponed. It was subsequently done with good result.

In another case, in 1949, I encountered such a big base that its removal had to be given up. Subsequently it was treated with radium. He was under my observation but finally succumbed in the hospital. In 1951, operative removal in a case had to be given up at the first attempt it was very hard and osseous. It was then contemplated to be removed by Gigli saw. It could be removed only partly. Pathological examination revealed it to be nasopharyngeal fibroma. Lately a young adult lady was admitted as a case of Nasopharyngeal fibroma. My lecturer, Dr. Jha, was doing the case. I was called in to see the case when he had difficulty. I found the growth to be very hard and finally took it out piece-meal as a case of osteoma.

Discussion on various methods of treatment:—The treatment of nasopharyngeal fibroma has undergone changes from time to time. At the Mayo Clinic prior to 1915 only surgical procedures were advocated. But this procedure fell into disrepute owing to high mortality rate from uncontrolled haemorrhage at times. *Kebylinski (1911)* reported 3 deaths in a series of 10 cases from haemorrhage; while *Wojatschek (1923)* reported 8 cases in which operation was performed by the transpalatal or transmaxillary route with no operative mortality though one died subsequently of the recurrence of the disease. These catastrophe probably swung the balance in favour of more conservative treatment in form of radium applications, as I will state presently. But armed as we are today with ready way of replenishing whole blood, I don't think we should shirk from undertaking surgical measures in these cases with certainly better and quick results.

Radium treatment:—During 1916 and 1924, twenty four cases of fibroma of the nasopharynx were examined at the Mayo Clinic. Twenty three of these cases were treated with radium applications. Following methods were in use:—

1. Surface application at various points of a 50 mgm. tube for 10 to 15 hours. It caused burning of the neighbouring tissues.

2. Interstitial method—Radon seeds on steel points were inserted directly in the tumour, the dose depending on the size of the mass.

3. Implantation of emanation seeds or radon points on glass or gold, dose being 0.5 to 1 m.c.

Since 1919 onwards 42 cases out of 45 were treated at Mayo Clinic with radium therapy or electrocoagulation, either alone or combined, three cases did not take treatment. Of the 42, 22 received radium alone, 17 diathermy combined with radium, two electrocoagulation alone and one roentgen therapy.

Duration of treatment:—For those who were treated with radium alone, was 6 months to 4½ years; for those with combined treatment (i.e., radium and diathermy) was two months to 6½ years. Average duration was worked out to be 1½ years.

After treatment of fibromas in these situations with either radium or surgical diathermy it results in atrophy of the nasal mucosa followed by crustation and if the crust is removed there is severe bleeding.

During these periods also there are reports of surgical treatment of the fibromas, however great the hazard—as the surgical procedure prevented any atrophy of the mucosa and subsequent haemorrhage.

Sancho and Ferrer (1929)—removed some tumours in five cases by avulsion with snare without any mishap.

Aloo villoria (1940)—has reported three cases where removal was performed by Moure's operation after preliminary laryngotomy.

Electrocoagulation:—is performed under intratracheal anaesthesia. Soft palate is pulled by passing a rubber catheter through the nose and taking it out through the mouth. The tumour is seen through posterior nasal mirror and points of electrocoagulation are applied. Diathermy and irradiation gave very good results at the Mayo Clinic.

But we must remember that it is difficult to assess the value of treatment in these cases, because the tumour undergoes spontaneous involution at the age of 25 years. So that in the above review whether the benefit accrued from the treatment instituted or in the natural process is not easy to interpret, especially because most patients were about the age referred to above. With cure the patients become robust and plump, except those who get frequent haemorrhage.

The above observations have been made from study of 63 cases at the Mayo Clinic, 58 being males and 3 females. Nasopharynx was involved in all the cases. The age of the patients ranged between 10 and 31 years. Combined treatment was done with no mortality.

From the Patna Medical College Hospital, I have presented a study of 46 cases, 43 males and 3 females. 43 cases were treated with surgery, one with radium treatment and two cases with combined treatment (surgery and radium). Mortality-Death occurred in two cases.

Advantage of Surgical treatment with comments are summarized :—

1. Quick recovery.
2. No burning of adjacent tissues in radium treatment.
3. Radium is not available at all places.
4. Surgery is a quite safe procedure and practically no mortality is to be feared.
5. Results are better with preliminary tracheotomy.
6. Blood transfusion should be given as often as required - usually two to three times prior to operation.
7. Though haemorrhage is brisk in the beginning, it stops completely by measures at our disposal.
8. Posterior plugging should be done and if necessary Penicillin should be given by parenteral route after the operation.
9. If the sinuses are involved, it is better to wash them before undertaking the operation.

CASE REPORTS

Case No. 1:—Lalla Prasad, 12 years, Kayastha, from a village in Saran District (1946).

Symptoms:—Nasal obstruction and epistaxis since 2 years.

Examined under general anaesthesia:—Big extensive tumour involving the left nostril. Glands in left cheek, which is free from the general tumour.

Ears:—Membranes healthy.

Biopsy:—Angio-fibroma, Tracheotomy done, Growth removed by operation.

Case No. 2:—Chandrika Singh, 16 years, Hindu male, comes from Muzaffarpur (1946).

Symptoms:—Nasal obstruction and bleeding from nose since 2 years. Examined under G.A. Tumour is broad based. The left nostril is involved. There is extension in cheek.

Ear:—Membranes healthy.

Biopsy:—Angio-fibroma. Growth removed by operation.

Case No. 3:—Awadh Singh, 20 years, Hindu Rajput, male from Chapra was operated in 1939 in P. W. Medical College Hospital.

It recurred and then he was treated by X-ray at Calcutta Medical College. He came here in 1945 July with symptoms of nasal obstruction (1946).

Operation was done. The root had involved the sphenoid sinus. It had to be sacrificed during operation. The patient practically collapsed due to extensive haemorrhage. Fresh blood had to be given from Blood Bank and then the patient came round.

Case No. 4:—Jamuna, 5 years old, male child, son of Karu Mahton of Gaya. First seen on 26—10—1949.

Symptoms :—Severe respiratory distress since 3 days. Nasal obstruction and epistaxis since about one year.

On Examination :—A big tumour from the nasopharynx and extending on towards orbit, nose and palate seen.

Treatment :—An urgent tracheotomy done by Dr. A. K. Sinha, M. S. on 26—10—1949.

27—10—49 Advised radium application over palate interstitially 50 mgm. for 22 hours.

4—11—49 Same dose of radium repeated.

11—11—49 Same dose of radium repeated.

17—11—49 Much tissue destruction present with sloughing, and oedema.

Advised—six Deep X-ray exposures over the growth.

Nothing heard of the patient after that.

Case No. 5 :—Jaleshwar, 14 years, male. C/o. Phaguni Mahton of Hajipur. First seen on 3—6—50.

Symptoms :—Epistaxis since 4 months-left side, Nasal obstruction—left side, Bulging of soft palate.

History :—4 months back he got headache, followed by epistaxis and nasal obstruction in left side.

On Examination :—Patient much run down in health, pale and anaemic.

Left side of the face is swollen, the swelling involves the left side of the nose and the left lower lid margin.

Pulse 120/mm. poor in volume and tension.

Nose—A sloughing mass seen in the left nostril, the septum is deviated to the right side.

Posterior Rhinoscopy—a big sloughing mass seen in the nasopharynx, extending into the nose, more on the left side.

On Palpation—the mass is found to be hard and fixed.

Sinuses —Maxillary sinuses dull on left side on transillumination.

Ear—No abnormality seen.

Clinical Investigations :—Total R. B. C. Count - 3.62 mill/c.mm. W. B. C. Count - 5,000/c.mm. Haemoglobin - 60%. Bleeding time - 15 seconds. Clotting time - 1 minute 50 seconds.

13—6—50 500 transfusion started preparatively and continued during the operation and post-operatively. Operative removal was performed by me.

21—6—50 Patient discharged cured.

Case No. 6 :—Jagdish, 16 years, male, son of Bidya Sao of Darbhanga. First seen on—18—9—50.

Symptoms :—Acute respiratory distress. Tracheotomy was done, after which the patient went away, and returned after two months.

On Examination :—16—11—51 A swelling was seen on the right side of the cheek, which was arising from the nasopharynx and pushed down the palate as well. Patient anaemic. B. P. 100/64 m.m. Hg.

Clinical Investigation :—Blood - Total R. B. C. - 5.85 mill/c.m.m. Total W. B. C. - 23,100/c.m.m.

Differential count of W. B. C. Poly - 58%. Lympho - 32%. Eosino - 6%. L. Mono - 4%. Baso - nil. Haemoglobin - 76%. Bleeding time - 30 seconds. Clotting time - 3 minutes 15 seconds. Urine - No abnormality.

27—2—51 Blood transfusion started pre-operatively and continued during the operation and post-operatively. Total of 500 c.c. blood given. The growth removed by operation by me.

9—3—51 Patient discharged from the Ward.

Case No. 7:—Muni Ram Kahar, 22 years, male of Monghyr. First seen on 16—7—1951.

Complaints:—Nasal obstruction - both sides, since six months, epistaxis - since 6 months, altered voice - since 2 months, proptosis and swelling about the left external nose since 5 months.

History:—The disease started with epistaxis about 6 months back with recurrences at irregular intervals. This was followed by nasal obstruction and other complaints.

On Examination:—General health of the patient was below par, the proptosis of the left eye and the broadening of the bridge of the nose has a resemblance to a frog-face.

Nose:—Both meatuses completely filled by the growth causing complete nasal obstruction. Posteriorly a big growth is seen in the nasopharynx which completely hides the posterior choana and the septum from view.

Throat:—Soft palate seen bulging downwards, and the lower end of the growth visible below the palate. On Palpation—the growth is felt to be firm and immobile arising from the bony wall of the posterior wall of the nasopharynx.

Ears:—Both sides perforated tympanum with obstructive type of deafness.

Other systems:—N. A. D. (No abnormality detected).

Clinical Investigations:—Blood - Total R. B. C. - 4.5 mill c.m.m. Haemoglobin - 70%. Total W. B. C. - 7000/ c.m.m. B. T. - 45 seconds. C. T. - 2 minutes 30 seconds.

Treatment:—28—7—51 Blood transfusion—200 c.c. given during the operation and intravenous saline transfusion, 2 pints given preoperatively.

Operative removal tried:—but as the growth was too hard, it could not be removed completely.

14—8—51 Second operation performed when the tumour was removed completely using the gigle saw.

1—9—51 Patient discharged from hospital.

Case No. 8:—Upendra Chowdhary, 28 years, male of Darbhanga. First seen on 7—9—51.

Complaints:—Blocking of both sides of the nose since 6 months, nasal bleeding—since 6 months, nasal voice since 1 month, weakness since 1 month.

History:—6 months back he felt tooth ache and severe headache and suddenly after that his nose started bleeding and continued for 4 hours.

He was alright for 2 months, but during the period he noticed blockage of nose. Later he was down with fever for 4—5 days and during this period he vomitted out blood. For 3 months he remained well and since one month he felt weakness and nasal voice. The flow from the mouth was one day back.

On Examination:—General condition below par.

Nose:—Nasal air passage are blocked more on the left side. In the left nose—a sloughing Vascular growth visible in the posterior part. Pyorrhoea—present. Palate thrust forward.

A white sloughing massive looking growth hanging on the left side of throat.

Post Rhinoscopy:—a growth occupying the posterior choana of left side completely and partly right side choana, fixed to the nasopharyngeal wall. It is firm in feeling.

Laboratory Investigations:—Total R.B.C. 4.8 mill/c. m. m. Haemoglobin 54%. Total W.B.C. 5,000/c.m.m. Bleeding time 20 seconds. Clotting time 2 minutes 15 seconds. Urine No abnormality.

Treatment:—20—9—51 300 c.c. blood given during the operation and continued post-operatively. Growth removed by operation on 1—10—51 Patient discharged from the hospital.

SUMMARY AND CONCLUSIONS

Fourty six cases of nasopharyngeal fibroma—observed at the Patna Medical College Hospital between 1940-1951—have been studied. Fourty three of the tumours occurred in male patients, three were present in female patients. The patients ranged in age from 5 to 45 years at the time of examination. A detailed review of eight case records has been presented.

The disease is found to occur more frequently in the tropics than in other climatic zone. The State of Bihar has quite a number of cases, and it is likely similar incidence is present in other States of India. The disease has special predilection for the male sex and occurs more frequently in poor class of patients than in the middle class or the well-to-do persons of the society.

Surgical removal of the tumour is not a hazardous procedure. The results are satisfactory if the operation is properly performed.

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Brain Abscess

BY

Dr. L. HIRANANDANI, Bombay.

It may seem to be temerity for me to choose this subject when it has been described in great detail by the western giants I have taken up the subject with great hesitation since my experience of hospital and private practice is of four years only. All the same I have ventured for three reasons:—(1) During this brief period of four years, I had opportunity to see good few cases (2) the malady does not seem to be very uncommon one, and (3) to pay homage to the inventors of recent anti-biotics whose fruitful efforts have reduced the mortality rate to a negligible level.

The series of cases on which this study is based represents the total number of patients suffering from this disease who sought treatment under me at the B. Y. L. Nair Hospital, at the Bombay Hospital and in my private practice.

Pathology:—In this series I have followed the usual classification of the cortical and subcortical abscess. In the former the pus being localized in the cortex and in the latter in the white matter. In 18 cases, three only, were of pure cortical variety. In the rest fifteen both cortex and subcortex were involved.

The otogenous abscesses are usually due to infection by both contiguity and continuity. Pure cases by the process of continuity were only three, the rest obviously appear to have been caused both by contiguity and continuity.

An infection originating in the tympanic cavity or mastoid antrum which is destined to enter the brain, first finds resistance in the bone which is met with by both processes of continuity and contiguity. The common type of mastoid bone in which brain abscess occurs is of the sclerotic variety. In my

18 cases there was not a single cellular variety of mastoid. In 12 cases the bone showed gross pathological changes of extensive necrosis so much so that the injection from the antrum had worked its way to the surface through the sclerotic bone producing a sub-periosteal abscess. In 6 cases there was no pathology of the bone and it was only after working through the ivory hard bone that one could expose the dura.

The second resistance I feel is much more important than the bone. It is the dura mater. Looking to the external pachymeningitis so commonly present in cases of chronic mastoiditis and comparatively so few cases of brain abscesses, justifies this observation. The presence of external pachymeningitis may not necessarily guide as to the site of the abscess. In one of my cases it was present in the cerebellar region and the dura covering the temporosphenoidal bone was looking normal though the abscess was of the temporosphenoidal variety. This may be due to the fact that either pachymeningitis is not the cause of the abscess or it had resolved during the quiescent period of abscess formation.

The manner of spread of infection from the dura to the pia has been very difficult to prove at the time of operation though I feel it must be by both methods. Only the cortical varieties must be by way of contiguity. This process first causes internal pachymeningitis and ulceration of the brain. The common condition must be certainly by way of continuity as in my 18 cases, only in three I could say have been caused by process of contiguity. In these three the dura mater had necrosed and there was marked necrosis of the cerebral cortex without any collection of pus. In the rest there was not much necrosis either of the dura-mater or of the cortical part and I had to go through the healthy cortex to drain pus. The subcortical abscess shows the usual pathological changes of first nonpurulent encephalitis followed by necrosis of the brain tissue and formation of pus. In 15 cases, eight had creamy pus, 2 creamy pus with fragments of necrotic brain tissue, and in 5 it was fetid.

The abscess wall:—In one case the abscess wall was 1 cm. thick and had a feel of dried leather. In 4, there was hardly any abscess wall except granulation tissue, in 10 there was definitely thin abscess wall.

The organisms:—In 10 cases the pus was sterile, in 3 showed streptococci and in 2 *B. Proteus*. This cannot be called true, since most of these patients were first treated with antibiotics before the operation.

Age:—10 were children under eight years, the youngest being 5. Eight were above 20 and the oldest was of 55 years.

Sex:—There were 10 males and 8 females.

Clinical features:—The clinical features of this disease vary according to the situation of the abscess, the site of the abscess and the presence of other complications like meningitis and lateral sinus thrombosis. In my series I have divided them into four groups—(1) Abscess with meningitis (2) Abscess with sinus thrombosis (3) Abscess with meningitis and sinus thrombosis and (4) pure abscess. Six cases belonged to the first group. These are the cases which first see the Physician. In all such cases I was called when treatment for meningitis had failed. It would not be out of place to describe a couple of such cases.

Case No. 1:—A patient, a male aged 27 years was admitted in a private nursing home under eminent physician for streptococcal meningitis. The symptoms were head-ache and high temperature. On third day he became unconscious. Blood showed increased leucocytic count with polymorphs preponderating, cerebrospinal fluid was under increased tension and it was frankly purulent and showed streptococci on smear and culture. Intensive treatment with penicillin and sulpha, patient improved after four days and recovered from coma. After 48 hours he complained of severe head-ache and lapsed into coma. During all this period he never complained of any ear-ache. This time C. S. F. was clear. When I saw the patient in this stage the positive signs for the presence of an abscess were not there. I diagnosed the case as

that of an abscess for following reasons— presence of attic—perforation with foul smell from ear discharge; relapsing in comatose condition after evident recovery from meningitis. There was no agreement about the diagnosis between the physician and myself. All the same patient was operated after 12 hours and recovered.

Another similar case of meningitis in a child of 10 years who was being treated by two Pediatricians Dr. Sanzgiri and Dr. Merchant when after three days of failure in improvement for treatment of meningitis, I was called to operate for brain abscess. The findings were similar as in the first case.

The other cases were referred to me by my colleagues on the medical side Dr. Bamji and Dr. Latif Patel in a similar way.

From such six cases I have come to realise, that brain abscess with meningitis is quite a common affair and because of presence of meningitis the abscess symptoms remain masked and many probably die undiagnosed in the hands of physicians. I beg to bring this important fact to the notice of physicians that non-meningococcal meningitis is commonly due to otitic in origin and though brain abscess symptoms may not be present. The physician thinks that there must necessarily be an ear pain or a mastoid pain or a mastoid swelling if an intracranial complication be of an otitic in origin. We, Ear, Nose & Throat Specialists always appreciate the fact that an intracranial complication is commonly present in a sclerotic mastoid and due to sclerosis, the local symptoms may be absolutely absent.

Abscess with sinus thrombosis:—There were three cases who came with abscess and sinus thrombosis. These patients had symptoms of lateral sinus thrombosis and the abscess which was produced from periphlebitis by process of contiguity producing necrosis of the dura mater and marked ulceration of the cortex.

Recent typical case admitted at Bombay Hospital of a female 10 years old with history of ear discharge of eight years duration had developed fever with rigors four to five

times in a day with acute ear-ache. There was a polyp in the ear with foul smelling discharge. There was mastoid antrum tenderness and tenderness along the Jugular vein. No signs of cerebellar abscess were present though on operation cortical type of abscess was noticed.

Abscess with meningitis and sinus thrombosis:—Six cases belonged to this group. A typical case of a man aged 30 years with the history of ear discharge for last 15 years started having fever with rigors and head-ache for last eight days. After six days he became unconscious and was brought with a full blown picture of meningitis in a semicomatose condition

Pure abscess:—Three cases belonged to this group. A male patient aged 35 years came for severe deep boring head-ache over the right parietal region. There were no other clinical signs except an attic perforation with a long standing ear discharge. On these findings alone, he was explored. He had temporosphenoidal lobe abscess.

Another patient was admitted on medical side at the Nair Hospital for weakness of right upper extremity with paresis of upper motor neurone type. After four days remaining in the wards, he developed severe head-ache. On inquiry he had history of long standing ear discharge. On clinical examination he had an attic perforation on left side. On operation temporosphenoidal lobe abscess was detected.

The third case I was called to see for symptoms of acute mastoiditis with long standing ear discharge in male aged 40 years. Patient was morose and apathetic. He had pulse rate of 60/min. On operation temporosphenoidal abscess was detected.

Diagnosis:—The diagnosis of brain abscess in this series was not in doubt even in one. Analysing these four groups, I feel that it is not very-difficult to decide whether an operative interference is necessary. In the first group where the patient first sees the physician and I feel it is worth repeating what I have said already that if we can only convince the physicians

that the commonest source of non-meningococcal meningitis is of otitic origin and that in such cases it is advisable for the patient to have a joint treatment of both a physician and an E. N. T. Specialist. It is also important to know that in majority of such cases there is no ear pain but only an attic perforation and that is enough evidence to show the origin of meningitis.

In group 2 & 3, the diagnosis is very easy. Since there are additional signs of lateral sinus thrombosis.

In the last group, an absence of ear symptoms, as in the first case above described when diagnosis may be controversial. It is quite right to argue that a brain abscess cannot be suspected on one symptom of head-ache but an attic perforation has always been my guide.

The additional investigations have been helpful but not necessary.

Blood examination:—Total and differential W. B. C. count was done in all cases which showed Leucocytosis with polymorphs preponderating.

Lumber puncture:—For diagnostic purpose for an abscess this method was not adopted. Though naturally cases with meningitis it was done for diagnosis and further treatment. In some cases streptococci were either seen in smear or grown on culture.

Ventriculography:—This method was not adopted since the diagnosis was always certain. I really feel that an otitic brain abscess does not need this method for diagnosis.

Prophylaxis:—If all cases with attic perforation and polyp are operated and radical mastoidectomy done brain abscess will disappear. There is controversy about polyp.

Treatment:—There are no two opinions that operation is the only treatment for this malady. In the past operation consisted of a stab incision with forceful dilatation of the incision and drainage by means of rubber tube. The results were very unsatisfactory with practically 100% mortality.

There is certainly a genuine difference of opinion between a Neuro-Surgeon and an E. N. T. Specialist. The former thinks that an operation through an infected field may cause an infection of leptomeninges and the brain. It is possible that a certain degree of infection may occur this way, but that is never of any serious degree. The advantages are very definite when operation is done through the mastoid—1. The abscess is drained where it is nearest to the surface. 2. Many abscesses are associated with other complications like lateral sinus thrombosis when one operation can manage both and (3) drainage is achieved best being at its lowest point. In all cases I have adopted approach through the mastoid and not in one case I had to repent.

Two methods are adopted for draining an abscess. (1) Closed method and (2) an open method. In the former after puncture of the dura mater, the pus is aspirated and the process is repeated. In the latter the dura is incised and the part of it is exercised and the abscess is drained. I have followed the latter method with very satisfactory results. This method gives immediate drainage. Two stage open method to avoid infection of the healthy part I think is unnecessary in the presence of antibiotics.

Anaesthesia:—All cases have been operated under ether-oxygen anaesthesia.

Operation:—In all cases radical mastoid operation was done and the dura mater was exposed. In cases with lateral sinus thrombosis, the presence of thrombosis was first confirmed and the internal Jugular vein was ligated in the neck. In one case the vein was ligated just near the clavicle because of the presence of thrombus. This patient recovered. I have not found it necessary to ligature the common facial vein. The lateral sinus was then opened and the clot removed until the flow of blood from above was noticed, which was stopped by gauze packing. In all cases except three, the guidance to the site of the abscess was the presence of the fistula. The dura mater was incised to enlarge the fistulous opening and the part

of the cut edges were excised for adequate drainage. After letting off the pus, the loculi in the cavity were broken with finger and the abscess cavity packed with paraffinised roller gauze.

Where there was no indication of the site of the abscess, the dura mater over the temporosphenoidal lobe and cerebellum was incised and pus located.

In two cases, one pint of glucose-saline was given during the operation.

Post-Operative treatment:—Dressings: for first four days the pack was removed every day and the abscess cavity repacked. One patient who was making an uneventful recovery for five days, suddenly became semicomatose because of the collection of pus in the cavity due to improper packing. As soon as pus was drained, the patient improved immediately. I believe that gauze packing is much better than rubber tube drainage which may allow development of loculi. The packing in all these cases was continued between two to three weeks. By that time the abscess cavity had closed and the patient's condition became normal.

Drugs: Inj. Penicillin two lacs—4 hourly for 10 days, Sulfadiazine—4 Gms. a day for 6 days, Streptomycin 1/2 G twice a day for 10 days, were given.

Patients with meningitis needed only lumbar puncture for 3 days after drainage of the abscess.

Post-operative course:—Except three patients, all were afebrile within 5 days. Those who were comatose before, regained consciousness after three days followed by steady recovery. Three patients, one recovered from coma after 16 days with steady recovery afterwards. The other patient recovered from coma after 12 days and on fourteenth day, he was having his lunch independently and suddenly collapsed and died. No post mortem could be done. Pulmonary edema was noticed.

The third patient who was recovering, but after 10 days showed signs of lung abscess with high temperature. Cough with foul smelling sputum and died within next three days.

It was really surprising to know how other parts of the brain can take up the function of the destroyed portion. Two cases are worth mentioning. The boy above mentioned who recovered from coma after 16 days and who had extensive cerebellar abscess with complete destruction of one cerebellar hemisphere, had no residual symptoms except the following for three months:—

Nystagmus, dysidiadochinesia and intention tremors.

The other patient who had temporosphenoidal abscess had hemiplegia on opposite side with complete recovery within six months.

Results:—Out of 18 cases, two died, mortality of 11.1 per cent. In pre-sulfanilamide days, the mortality of temporo-sphenoidal lobe abscess was 70% and of cerebellar abscess 95%. After introduction of sulfanilamides, mortality was reduced by about 20%. It is only with the introduction of penicillin, streptomycin and other anti-biotics like aureomycin and—terramycin that the mortality has been reduced to such a low figure as 11%. As compared to any other series, the results of my patients have not been inferior.

I have seen cases as a resident at K. E. M. Hospital in pre-penicillin days when patients always used to die of cerebral fungus and herniation. This has become an unknown complication now. Various treatments like repeated lumbar punctures, pressure dressings and dehydrating diet were suggested with no better results. We now know that cerebral fungus and herniation is really due to spreading encephalitis and until that is controlled all these treatments will fail. The spreading encephalitis is now easily arrested by the recent antibiotics. The causative organisms may not be susceptible to one antibiotic, hence I feel for such a disease all antibiotics must be administered without delay and without waiting for testing the sensitivity of the causative organism to a particular

antibiotic. I may just quote one instance for another intra-cranial complication like—covernuous sinus thrombosis. A patient in a comatose condition with a blind eye, Sulfa, Penicillin, Streptomycin and Terramycin were given to him with complete recovery even of the eyesight.

I thank Dr. Vengsarkar, the Superintendent of the Nair Hospital and Col. Watts, the Superintendent of Bombay Hospital for allowing me to publish the records. I thank Dr. K. U. Shah who has so kindly helped me to prepare this paper.

DISCUSSION (On Brain Abscess).

Dr. S. Roy (Calcutta):—My experience takes me back to the pre-penicillin days. I had 7 cases within 6-8 months. In one of these cases the abscess had already ruptured into the lateral ventricle in a man of 65 years of age. Others were all operated upon quite successfully and they are all living and doing well. Each one was operated and drained by the usual mastoid route.

Dr. R. V. Rao (Hyderabad Dn.):—Lumber Puncture and C. S. F. examination is necessary, more so in Temporo-sphenoidal lobe abscess in a right handed person. Repeated neurological examination is necessary, even during a course of one day. Cholesteotoma and brain abscess are more often together.

Major K. K. Ghosh:—Asked does cerebral hernia follow the fingering of the abscess?

Chairman Dr. C. A. Amesur (Bombay):—Congratulated Dr. S. Roy on his excellent 100% success even in pre-antibiotic era; for he himself had under 50% in that period. Results have greatly improved with the antibiotics. He told Major K. K. Ghosh that the opener's fingered case was seen by the Chairman at the Bombay branch's Clinical meeting nine months ago and can reassure him that the patient had no cerebral hernia. He does not advocate fingering, though in one case in 1949 he had to use the same in a huge abscess in the cerebellum, operated through the mastoid route, without causing hernia. He further congratulated the opener on marshalling his facts so well.

Some Experiences in Ethmoid-Cell Variations

BY

Dr. C. A. AMESUR, M.S. (Lond.)

In the very early foetal life, the ethmoid bone is only represented by five septi, named from before backwards the uncinat process (U.P.), the bulla ethmoidalis (B.E.), the middle choncha (M.C.), the superior choncha (S.C.), and the anterior wall of the Sphenoidal air sinus (A.W.S.)

Colleagues, you would naturally ask why this anterior sphenoidal wall is a part of the ethmoid? The answer becomes plain, if we disarticulate a skull of dead infant, we find that the anterior sphenoidal wall goes with the ethmoid bone (Fig. 1). These five Septi in lower animals are all conchae. Between these septi are four primary spaces called the infundibulum (I), the middle meatus (M.M.), the superior meatus (S.M.) and the spheno-ethmoidal recess (S.E.R.); which by secondary cell sub-divisions become the mesh work of the adult ethmoidal cells. The variations of the ethmoidal cells are far too many to be described in this short paper, but I only limit to those which I have come across during the past twenty six years of my practice. The infundibulum may be interrupted by straight or curved ridge or ridges. A partition may cause a cul-de-sac in it, thus hindering the passage of a probe into the frontal sinus, during clinical examination. The infundibular cells are formed by undermining the ascending process of the superior maxilla. One of these cells, which undermines the aggar nasi crest is christened by Mosher the Aggar cell. It is this cell which comes into view not only in the endo-nasal frontal operation, but also in the West's operation of the tear sac. These infundibular cells were present in 42% of my 512 cases. Therefore, one forms the habit of investigating and treating these cells in the suppuration of the anterior group of the paranasal sinuses.

The bullae ethmoidalis may prolong upwards into the posterior i.e. cerebral wall of the frontal sinus, thus giving rise to a cavity, the bulla frontalis (Fig. 2 & 3). I have had only four cases of this or less than one per cent. Two of the atypical ones may be mentioned here. One was in a Parsi girl

of about 14 who saw me at the J. J. Hospital in 1934 with history of frontal sinus operation, and persistence of headache and temperature for nine months. X-Ray taken showed me the presence of this abnormal ethmoid cell and cure followed ethmoid operation. The second was in a Hindu adult, male whom I admitted at the J. J. Hospital in 1936 with a frontal lobe abscess secondary to the bulla frontalis. Ethmoid operation by transfrontal route and draining of the abscess made the patient fit to be discharged in twelve days time.

If the fovea orbitalis superior is excessively developed, thus pneumatizing the otherwise solid roof of the orbit, we get the orbito-ethmoidal cells. I have had only one case that is less than one-fifth of one per cent. This was in a Colonel returning to Malaya from his honeymoon in U. K. He was seen at the Royal Air Force Hospital, Aden in 1938; with a swelling above the right eye-brow, external to the frontal sinus. He had pain, headache, temperature, right nasal obstruction, and proptosis on right side. I admitted him at St. George Hospital Nursing Home on landing and then transferred him to British Military Hospital. No pathological changes were found in the eye by Sir Jamshedji Duggan. He made the uneventful recovery after the ethmoid operation (Fig. 4 & 5).

Normally middle concha is solid but in 12% it was highly pneumatized thus giving rise to concha bullosa. In 9% it was unilateral and in 3% bilateral. I have had no case of concha bullosa of the superior concha (Fig. 6).

Major K. K. Ghosh :—Which operation is done to prove the cell variations?

Dr. P. R. Dasgupta :—Who else has used this type of terminology?

Dr. C. A. Amesar :—In reply said the operation he advocates are mostly intranasal but in cases of Bulla frontalis by transfrontal route and in others extranasal. In late twenties prof. Hirsh of Vienna used similar terminology.

Paper read at the Fourth Annual Conference of The Association of Otolaryngologists of India held on 19th December 1951 at Calcutta.

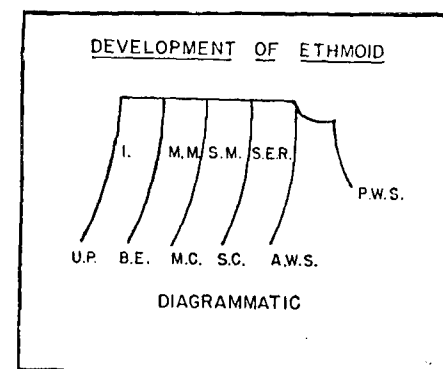


Fig. 1—Diagrammatic representation of the Ethmoid in Infant.



Fig. 2—Notice three wires passed through the openings, from before backwards of frontal sinus, bulla frontalis and of the concha suprema, which are very rare.



Fig. 3—Superior view of the anterior cranial fossa showing the partition between frontal sinus and bulla frontalis.

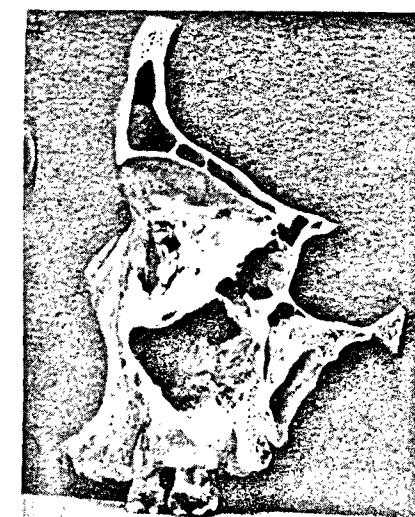


Fig. 4—Shows the pneumatization of the roof of the left orbit. These cells are closed by the ethmoid. Please note posteriorly the lesser wing of the phenoid is pneumatized.



Fig. 5—Shows fovea orbitalis inferior in the floor of the left orbit.

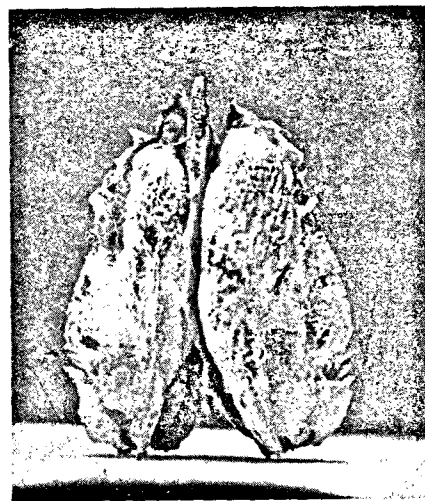


Fig. 6—Shows concha bullosa of the left middle concha.

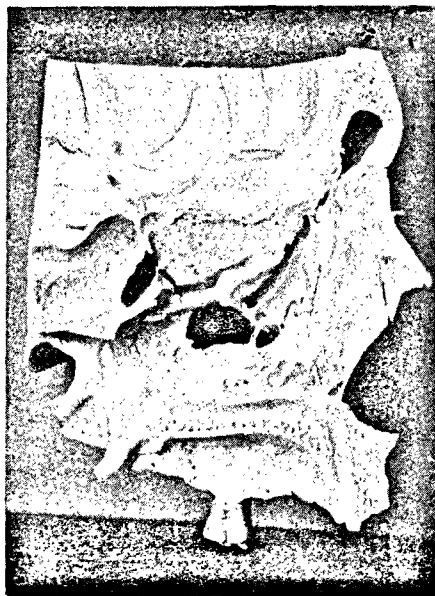


Fig. 7—Shows posterior ethmoidal cell invading the anterior wall of left Sphenoidal sinus.

Stellate shows the opening of this ethmoidal cell in the left sphenoidal recess. There is no opening of left sphenoidal sinus on this side.



Fig. 8—The right counterpart of the above specimen shows the opening of the sphenoidal sinus into the right sphenoidal recess. The stellate is put to show the opening. In this skull there is only one sphenoidal sinus without any partition in between.

ABSTRACTS

AN ANALYTICAL SURVEY OF THE EVOLUTIONARY DEVELOPMENT OF THE FENESTRATION OPERATION

By JULIUS LEMPert, M.D.

(*The Annals of Otolaryngology, Rhinology, Laryngology*, Vol. 61 XI, Dec. 1950, No. 4)

The author reviews his former observations to maintain an open fistula. These are aseptic technic, use of gold or lead polishing burs for polishing edges of lateral wall and implanting metallic particles in the wall, complete removal of bone dust and employment of cupola technic.

The author from his experiment on Rhesus monkeys and study of 72 cases of permanently patent fenestra, advocates invagination of the tympanomeatal flap into fenestra gap to prevent osteogenesis. The flap should be thin and retained accurately by cotton inlay over it and an intramastoid wound dressing. The present idea was logically conceived by the author in 1938, scientifically proved since and found to practical application, thus answering Holmgreen's question of 1937.

N. K. APTE.

SARCOMA OF THE NOSE AND SINUSES

By H. C. HIGH, M.D.,

(*Laryngoscope*, Vol. LXI, August 1951, No. 8)

Sarcoma of the nose and paranasal sinuses is a rare entity. Hence many physicians do not suspect it. The cause of sarcoma is obscure. Various authors have reported sarcoma developing after irradiation or some other cause. The disease is more common in children and young people. These tumors are slow growing with less tendency to ulceration than carcinoma. They present more distinct expansive growth with extension by contiguity and symptoms are due to pressure. Nasal obstruction and pain are the most frequent complaints. X-Ray and biopsy examination is helpful in the diagnosis. Homogeneous clouding of the antrum is less dense, than caused by polyp or chronic infection. The original antral lesion is in the region of the teeth. Alterations in the alignment of the teeth is a late finding. Expansion and thinning of the walls of the sinus are seen in late cases.

The tumor has to be differentiated from fibroma, carcinoma, mucocoele. All pathologists agree that histological diagnosis has always to be correlated with clinical behaviour of the tumor.

Each case must be individualized as regarding treatment. The factors to be taken into consideration are:—accessibility, grade of malignancy, extent of malignancy, evidence of metastasis.

N. K. APTE.

NASAL MALIGNANT MELANOMA

By T. SINELAIR STEWART

(*The Journal of Laryngology and Otolaryngology*, Aug. 1951, Vol. LXV, No. 8)

The clinical aspects of fifteen cases of malignant melanoma of the nasal cavity are recorded and discussed. The tumor is more common than has been realised. The association of a tumor with pigmentation of the adjacent nasal lining must lead us to suspect it. The appearance of the

tumor depends on the extent of polyposis within or about the tumor, infection and necrosis supervening. Clinically three types can be differentiated:—

- (1) A nodule plaque or sessile tumor with pigment in some cases
- (2) A malignant *polypus* which bleeds on touch or rapidly recurs after operation.
- (3) The late malignant mass with no distinguishing features.

The common site of origin is in the middle meatus. The sinus is not involved usually. Epistaxis is the most common symptom. Diagnosis is by careful microscopic examination. The risk of biopsy has to be taken. Prognosis is grave. For the present, excision appears to be the correct treatment of this tumor whereas radiation is the accepted method for carcinoma.

N. K. APTE.

ON SPONTANEOUS CEREBROSPINAL OTORRHEA DUE TO CONGENITAL MALFORMATIONS

By NENZELIUS.

(*Acta Oto-Laryngologica* Col. L. XXXIX Aug. 1951. Fasc. IV.)

The two common causes of otorrhea and rhinorrhea are:—

- (1) Fractures of the skull,
- (2) Surgical measures.

More unusual are through fistulae due to, (3) erosion of tumors or inflammation and (4) congenital malformations. Only two cases have been reported so far, due to congenital malformation. In one the fistulous track was situated in the inner auditory canal as reported by Escat. The other case reported by Kilne had extralabyrinthine fistula. The present case reported by the author had fistular track traversing a malformed labyrinth. The finding was confirmed at the third operation, other congenital anomalies may be associated with a congenital fistula.

N. K. APTE.

EVALUATION OF OPERATIVE INDICATIONS & RESULTS IN FENESTRATION FOR OTOSCLEROSIS.

By E. H. CAMBELL, M.D.,

(*A. M. A. Archives of Otolaryngology and Laryngology* Oct. 1950, Vol. 52, No. 4)

The author has analyzed the results of fenestration operation from three following stand points:—

- (1) The degree of deafness before operation.
- (2) The age of the patient.
- (3) The bone conduction before operation.

The amount of improvement obtained in mildly deaf patient (38 or less decibels) was much less than the improvement obtained in the severely deaf patients (62 or more decibels.)

The hearing improvement after operation was practically same in young and old. There was a higher percentage of patients in the younger group to obtain hearing to a practical and serviceable level.

The improvement in hearing was almost as good in those cases with bone conduction at 2048 as it was with normal pre-operative bone conduction at 2048. The author concludes that a considerably reduced conduction at 2048 frequency does not indicate auditory nerve degeneration at that level as to give a bad prognosis after operation because it is near the pitch of the 2048 frequency masked reception of the isometric tone in some cases.

N. K. APTE.

EPISTAXIS AND SINUS INFECTION

By I. J. L. MORRIS.

(*The Journal of Laryngology and Otolaryngology* Sept. 1951 Vol. LXIV No. 9)

The causes of 160 cases of epistaxis as found in Ear, Nose and Throat out-patient and Inpatient Department have been investigated. In nearly one third of the total cases no cause was found. The underlying cause of epistaxis as noted by the authors are—Septal deviation, vicarious Menstruation, Osler's disease, Septal perforation, Tonsils and Adenoids Coryza, Trauma, Papillana Septum, Anemia, Positive X-ray evidence of sinus infection, Hypertension, Idiopathic. The author concludes that in all cases of epistaxis particularly those occurring in elderly with or without hypertension and in adolescents should have the nasal sinuses investigated by X-Rays and lavage for the presence of latent chronic infection.

N. K. APTE.

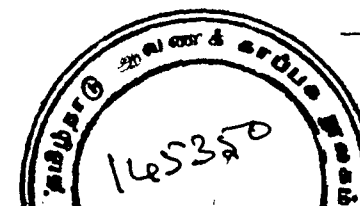
BENIGN TUMOURS OF OESOPHAGUS

By F. BERGES KARKIS (Lond.)

(*The Journal of Laryngology and Otolaryngology* Sept. 1951 Vol. LXIV No. 9)

The author reports of a case of a simple pedunculated papilloma of the Oesophagus which was removed endoscopically. The available literature regarding benign tumours of Oesophagus has been reviewed. The condition is relatively rare. The benign lesions of oesophagus are a rare cause of clinical dysphagia. The condition may be diagnosed during life by clinical, radiological and endoscopic means or incidentally discovered at postmortem. Dysphagia when present is intermittent and not rapidly progressing. Regurgitation of the pedunculated tumour into the mouth occurs during coughing or vomiting. The tumour may be reswallowed. Death rarely has resulted due to suffocation. Signs are of Oesophagus obstruction: Diagnosis is by X-ray and endoscopic examination. The Pathological examination shows that extra mucosal leiomyomata are more commonly encountered than the mucosal pedunculated tumours which are usually fibromyxomatus. Leiomyomata have a tendency to become malignant. As regards treatment—small tumours producing few symptoms are best left alone. Leiomyoma must be removed surgically. Pedunculated small tumours are removed endoscopically with or without use of diathermy. Large tumours may be removed by cervical thoracotomy or by transthoracic oesophagotomy. Oesophagectomy and anastomosis is required in rare cases. Adequate chemo and biotherapy is instituted after operation.

N. K. APTE.



Symposium: CARCINOMA OF THE LARYNX

Laryngoscope: 61: 488-529: June 1951.

The first paper by Dr. Francis E. LeJeune deals with the surgical treatment of early carcinoma of the larynx. Every case of cancer of the vocal cords presents with vocal changes simultaneously with the development of the lesion and still 30% of patients come for the first examination when little can be done. Early cancer of the vocal cords may be cured either by intralaryngeal extirpation or by laryngofissure.

Only 6 to 7 per cent of intrinsic cancers of the vocal cords are suitable for intralaryngeal extirpation by Suspension Laryngoscopy under Sodium Pentothal and Curare anaesthesia. Ideal lesion for this procedure is a small surface growth of size of a grain of rice at the junction of anterior and middle thirds of the vocal cord with normal tissue surrounding. Precancerous conditions like Leucoplakia and Keratosis may be treated likewise. Later the cord operated is impossible to recognise and the voice is far superior to that obtained in Laryngofissure. In a series of 49 cases the curability rate was 93%, highest for any malignancy of the larynx.

Laryngofissure is best suited for intrinsic carcinoma of the middle-third of the vocal cord with both ends free. Extensive leucoplakia or the growth which involves anterior commissure or crosses over to the other cord may be treated by laryngofissure.

Skin graft on Tantalum plate left for six weeks improves voice and breathing when anterior half or anterior third of both vocal cords have been removed resulting in synechia and web formation.

The prognosis in properly selected cases is 85% cure.

The second paper by Dr. Henry B. Orton considers the treatment of extensive carcinoma of the larynx by laryngectomy with or without block dissection of neck. The author has accepted New's suggestion of Anatomical classification of extrinsic cancer of the larynx. Out of 524 private patients, 59 were inoperable and palliative treatment like Tracheotomy was done. 79 refused operation, 43 had irradiation and none alive for five years and the percentage of five year cures in the remaining 344 operated cases was as under:—

	Operated Cases.	Over 5 Yrs.
1. Cords	132	70%
2. Subglottic	62	48%
3. Ventricle	38	55%
4. Epiglottis	32	65%
5. Epiglottis and Tongue	21	62%
6. Aryepiglottic fold	18	16%
7. Arytenoid	17	58%
8. Pyriform	24	25%
	344	

Operative mortality—6 deaths (1.7%) within three weeks of operation.

The larynx must be sacrificed in all the cases excepting possibly in those cancers involving the lingual surface of epiglottis, which may be treated by suspension laryngoscopy.

Treatment of extensive carcinoma of the larynx is total laryngectomy with dissection of the neck if the nodes are palpable. The dissection of the neck should include in area from angle of jaw and tip of mastoid downwards to below the posterior belly of the omohyoid muscle removing the jugular vein, submaxillary gland and its nodes, fascia, the hyoid bone with the infrahyoid muscles and the larynx en masse. In any involvement of the posterior part of the tongue from the lingual surface of the epiglottis, the submaxillary gland with its nodes should be removed. Main lymph node of the tongue at the bifurcation of the carotid should be removed in cancer of the larynx involving the base of the tongue. In order to completely encircle the growths of the lower portion of epiglottis, Vestibule and the false cord, the entire larynx, pre-epiglottic space and the hyoid bone should be removed en masse.

We cannot be conservative when dealing with cancer and the operation should be sufficiently radical to get well beyond the growth.

Dr. J. A. Del Regato in his paper puts forward his views on Roentgen therapy of carcinoma of the endolarynx. He pleads for the skilled radiotherapy in certain institutions and complains that while all efforts are made to increase the results of surgery of cancer, department of radiology are expected to carry on their duties without right to hospitalization of patients.

In hypopharyngeal and laryngopharyngeal carcinomas, radiotherapy results are poor and he advises radical surgical interventions.

Both roentgen therapy and the total laryngectomy have good results with carcinoma of the endolarynx. Radiotherapy is a conservative procedure with full benefit later of total laryngectomy which he calls a mutilating operation. He would prefer carcinomas of supra-glottic region (i.e.) from laryngeal wall of epiglottis, false cord and ventricle being treated by radiotherapy while sub-glottic carcinomas by total laryngectomy. For glottic lesions i.e. those arising from the vocal cord, he prefers radiotherapy for a small lesion and total laryngectomy where the cord is fixed.

Results of roentgen therapy of carcinoma of endolarynx:

Aggregate cases of five authors from 1919 to 1945:—

Total 593 cases:—171 or 29% well for 5 years or more. Results of roentgen therapy of early carcinoma of vocal cords.

Aggregate cases of five authors from 1919 to 1945.

Total 66 cases:—48 or 73% well for five years or more.

Dr. Leroy A. Schall has selected all the cases of cancer of the larynx treated between 1930 and 1945 at Massachusetts Eye and Ear Infirmary for presenting the results of treatment. The cases were followed for five years or longer.

	Total cases	Dead	Five year cure
1. Irradiation ...	231	190	41 (17.7%)
2. Laryngofissure ...	54	22	32 (59%)
3. Laryngectomy ...	104	43	61 (58%)
4. Cordal cancer-suitable for surgery but treated by irradiation ...	13	1	12 (92%)
	<u>402</u>	<u>256</u>	<u>146 (30.7%)</u>

Dr. Schall has never performed so-called narrow field of surgery because he feels that when a patient is faced with loss of larynx, he is not interested any longer in conservative surgery. The problem is how much can be removed and not how little.

In his paper Dr. Gordon B. New summarises the previous four papers of symposium.

Dr. New agrees with indications and treatment of early carcinoma of the larynx as presented by Dr. LeJeune with the following remarks:— (i) that he uses an electric saw with stream of cold water from the syringe for cutting the thyroid cartilage, (ii) that he would prefer to do few extra tracheotomies in laryngofissure than doing one after the patient has developed partial obstruction from oedema and (iii) for preventing the adhesions, he uses soft rubber prosthesis covered by a finger cot and sutured through skin. It may be removed from above in 2-3 weeks time.

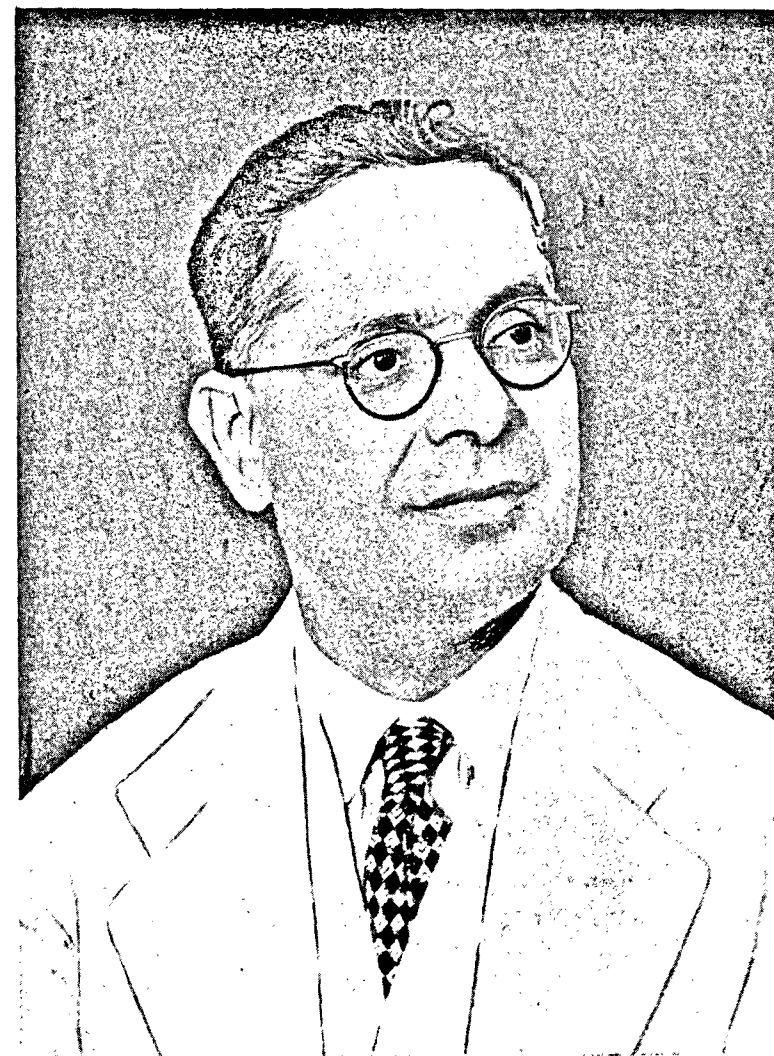
Review of carcinoma of tongue has shown that when there were no palpable glands clinically, 22% of glands showed malignant involvement microscopically and when the glands were palpable, 67.5% showed involvement. In view of the above data he inquired from Dr. Orton if he does neck dissection even if no nodes are palpable.

Contrary to Dr. del Regato's view, Dr. New does not believe it in best interests of the patients to tell a patient that conservative treatment may be tried and if this fails, he still can have a radical operation.

Dr. Schall has treated 63% of cases of carcinoma larynx by irradiation and only 37% surgically but Dr. New believes that 70-75% of cases can be treated surgically. He inquired if 13 cordal lesions treated by irradiation would not be suitable for removal by suspension laryngoscopy.

Dr. K. U. SHAH.

THE ASSOCIATION OF OTOLARYNGOLOGISTS OF INDIA



Dr. C. A. AMESUR (Bombay)

President 1951.



Dr. S. ROY (Calcutta)
President 1952.

Association Notes

The Fourth Annual Conference of the Association of Otolaryngologists of India was held at Calcutta, in December 1951.

On the evening of 17th December 1951 the meeting of the Governing Body was held at the residence of Dr. S. Roy and the business was conducted. Later Dr. S. Roy entertained at Dinner the members of the Governing Body.

On Tuesday 18th December 1951 the Fourth Annual Conference was opened by His Excellency Dr. Mookerjee, the Governor of West Bengal at the Calcutta Medical College. His Excellency Dr. Mookerjee said that the majority of people regarded diseases of the ear, nose and throat, particularly among children, as minor ailments and neglected them for long with disastrous consequences. The specialized knowledge of medical experts in ear, nose and throat treatment should be disseminated in a readily intelligible form among general practitioners. The Association should maintain contact with deaf and dumb schools.

The Governor suggested that the Association should take the lead in arranging for the manufacture of hearing aids for the deaf in the country as imported instruments were costly and beyond the means of afflicted persons. After Dr. J. K. Datta, Chairman of the Reception Committee delivered the address to the delegates, Dr. C. A. Amesur read the Presidential address. The delegates were then taken to various departments of the Medical College Hospitals.

By courtesy of Dr. J. K. Datta, there was Lunch at Great Eastern Hotel to the Delegates. In the afternoon, the scientific session started.

On the 19th December 1951 the Scientific Session continued from 9 a.m. to 12 noon, after which the delegates were entertained to lunch by courtesy of Major K. K. Ghosh.

In the afternoon the scientific session was in progress from 2 p.m. to 5 p.m. At 5-15 p.m. the members were entertained at tea by courtesy of ITEC Ltd. There was Dinner that night by courtesy of Dr. S. Roy.

On 20th December 1951, the business meeting of the Association took place and the following reports were read and passed.

- (a) Annual report by the Honorary Secretary.
- (b) Journal report by the Chairman of the Editorial Board.
- (c) Resolutions.
- (d) Election of Office bearers for 1952.

At noon, Lunch was given by Major N. Dutt.

At 3.30 p.m. there was visit to Chittaranjan Cancer Hospital and there was Tea to the delegates.

Office Bearers for 1952.

<i>President</i>	: Dr. S. Roy.
<i>Immediate Past President</i>	: Dr. C. A. Amesur.
<i>Chairman Editorial Board</i>	: Dr. P. V. Cherian.
<i>Secretary</i>	: Dr. L. Hiranandani.
<i>Treasurer</i>	: Dr. R. A. F. Cooper.
<i>Associate Secretary</i>	: Major K. K. Ghosh.
<i>Members</i>	: Dr. R. N. Kacker. Major N. Dutt. Major N. Srinivasan.

WELCOME ADDRESS

By Dr. J. K. Datta, M.B., F.R.C.S., Chairman, Reception Committee, Fourth Annual Conference of the Association of Oto-Laryngologists of India.

LADIES AND GENTLEMEN.

On behalf of the Reception Committee of the Fourth Annual Conference of the Association of Oto-Laryngologists of India, I consider it a great honour to be given the pleasant task to welcome you to this City of Calcutta. I thank you most cordially for the trouble you have taken to come over here to attend the conference and I am sorry for those of our colleagues who could not join us at this happy gathering but who will, I am sure, from a distance wish us godspeed and success.

It is indeed a great privilege to have amongst us today such a distinguished person as our State Governor Dr. H. C. Mookerjee. Inspite of his multifarious functions and duties His Excellency has found time to come over here to inaugurate the conference. This only shows his keen interest in our specialty and we wish to express our deep gratitude to him.

This is an occasion in which we not only exchange greetings amongst ourselves, meeting old friends and making new acquaintances, but we also try to exchange our ideas regarding various aspects of our specialty so that we may be most up-to-date in the knowledge and treatment of the various diseases we are confronted with. For this reason we have arranged scientific sessions at which the leaders of our specialty will speak on the subjects they have specialised in and I hope all of you will join in the deliberations and make the conference a complete success.

It will be almost a century now that Oto Laryngology has established itself as a separate entity in the field of medicine. Here we cannot forget the service of those who practised the specialty in Calcutta and have left an indelible mark on our profession. I mean particularly the late Col. O'Kinealy, Dr. N. J. Judah and Dr. U. N. Das. It is not a little due to their untiring efforts that we can claim now that E. N. T. has stood the test of time. Much progress has been made in the specialty but much more has still to be gone through, so we must not be complacent over the achievements we have already made. Ours is a specialty which is ever progressing and I am glad that our University has recognised the importance of the subject and has placed it on a par with other subjects in the medical curriculum. Lectures are now given by the Professors in the medical colleges and a paper on Diseases of Ear, Nose and Throat and Ophthalmology has been instituted for the final M.B.B.S. examination for the past few years. This now forms a part of the examination for Surgery but I learn that from the next session Oto-Laryngology and Ophthalmology will form an entirely separate and independent subject, not tied up with general Surgery. I hope in course of time the twin will further be split up and Oto-Laryngology will form the subject matter of a University examination entirely on its own merit. I am sure the Honourable the Vice-Chancellor will see to the reasonableness of this proposal and put it into effect and thereby foster the development of the specialty as fast as possible.

It seems to me, however, that considering the vast scope and the recent advances made in this particular branch, it has not received due attention from the hospital authorities here. The number of beds in the E.N.T. wards of the various hospitals is too meagre and hardly sufficient for the number and varieties of patients that demand attention. The arrangement for the teaching of the students therein leaves much to be desired. Investigation should be made into this matter by the proper authorities and necessary steps undertaken for the rectification of defects and improvement made to bring it on a par with what obtains in modern first-class institutions in advanced countries of the world—a condition which we aspire to achieve and maintain.

With regard to post-graduate study we cannot claim we have made any progress in Calcutta. We have not got any hospital fully equipped with modern appliances where students can get their appropriate training. Would it be too much to expect of our Chief Minister Honourable Dr. B. C. Roy, Minister in charge of the medical portfolio and a name to conjure with in our profession, to move in the matter and give a practical shape to the project? He is ever vigilant of the progress of everything connected with medicine as he is of every humanitarian object, and I am sure his indomitable energy and keen far-sight will enable him to appreciate the urgency of the matter and fulfil what will be of inestimable benefit to the suffering humanity. A special E. N. T. hospital with both out-patients' and in-patients' departments should be built in Calcutta. It should have the most modern equipments and should have on its staff well qualified and experienced teachers. Here research work should be conducted in every branch of the specialty and post-graduate training imparted on the most modern lines. At the same time in order to give impetus to the students the University can institute a diploma course in Otology and Laryngology as has been done in some other Universities in India.

Diseases of ear, nose and throat are very common in our country but the common man does not always realise their significance and seriousness. So it must fall upon us, as specialists, the heavy responsibility of educating the public in the matter. Poverty, insanitary conditions, adulteration of foodstuffs and unbalanced and deficient dietary, these amongst others are responsible for the incidence of so many diseases,

including those of the ear, nose and throat. Here comes in the necessity of our Government, medical profession and the public to combine and put in their best efforts to combat these enemies of health and create an ideal social order in the state. I would also like to refer to a problem which is assuming formidable proportion among patients, both rich and poor. I mean the problem of deafness. My appeal to the specialists is that they might give their serious attention to it and suggest whatever remedies they consider best for prevention of this condition.

Again due to the partition of Bengal lacs and lacs of people have been uprooted from their hearth and home in East Bengal and have been obliged to come over to West Bengal for shelter and rehabilitation. Many of these unfortunate people live in insanitary conditions and on almost starvation diet, and hence fall an easy prey to diseases. They go to hospitals for treatment and I can speak from my personal experience in the E. N. T. department that almost fifty per cent of our patients come from the refugee population. Our hospitals, I mean particularly the non-government institutions, already over-burdened by the high cost of every commodity, can hardly meet the soaring expenditure due to the influx of these poor patients. The State Government as also the generous public are always helping but modern therapy needs a tremendous amount of funds and due to economic reasons these hospitals cannot grow to their full development. The Central Government has taken upon itself the responsibility of rehabilitating and giving relief to these displaced persons, and also, I may take it, of looking to the health of these unfortunate victims of partition. Could we not then look to New Delhi to come to our rescue—to the rescue of our non-government institutions with substantial monetary help so that these can carry on and fulfil their duties to this suffering humanity.

Ladies and Gentlemen, I am afraid I have taken too much of your time and I must close now. There will be scientific sessions and I hope you will take part in the deliberations and make the conference a complete success. I am sorry the arrangements we have made for you may fall short of your expectation. We may not have been able to make you as comfortable as we would desire but I trust you will forgive us our lapses in consideration of the fact that our effort is

backed by the warmest cordiality. Once again I accord a hearty welcome to you. And I wish to express our deep gratitude to His Excellency Dr. H. C. Mookerjee for his kind presence at this Conference.

JAI HIND.

PRESIDENTIAL ADDRESS

BY

Dr. C. R. AMESUR, M.S. (Lond.) D L.O. (Eng.)

YOUR EXCELLENCY, LADIES AND GENTLEMEN,

We the members of The Association of Otolaryngologists of India are very grateful to your Excellency to have found some time, during this Xmas week and country-wide general election, to grace the opening of this Conference. It has been a great privilege of this Association to have had the honour of opening its Conferences since its inception in 1947 by the Heads of the States of Bombay, Madras, Bombay, Uttar Pradesh and now West Bengal. We are also indebted to the Health Ministers of the various States, to have inaugurated our Scientific Sessions and co-operated in fulfilling some of the objects of our Association. We do hope they will continue to help us in mitigating the sufferings of the public in their respective States.

In our country there are more than 8,000,000 hard of hearing people. A very large number of them suffer from the discharging ears. In my 1949 Presidential Address, I suggested that our Welfare State should compell the local bodies to provide Vit. "A" to children in schools, thus greatly reducing the diseases of the upper respiratory tract and middle ear. But I regret that no action is taken on this suggestion, which has been brought to the notice of the various ministries concerned. This being prevention of disease, is cheaper than supply of Medresco electric hearing aids.

There are over 2,000,000 people with clinical otosclerosis. For this type of deafness suggestions were made but the Government is moving very slowly, because of repeated financial crises and devaluation. Here it is my duty to suggest how we can bring down the price of Medresco hearing aid say

from Rs. 475 to Rs. 150, so that the middle classes be persuaded to make use of it, and carry on the occupations instead of being unemployed.

Each district Civil Hospital in addition to an E. N. T. Department, should have an auxiliary Deaf Clinic. This should be equipped with an audiometer, in charge of a nurse-technician and helped by a team of social workers. The deaf people, whose audiogram charts are taken by the nurse should then see the E. N. T. Surgeon of the local hospital, who should sort out the suitable cases of Fenestration and pass them on to the State General Hospital. For the rest the Medresco Hearing Aid may be given.

The production of the Medresco Hearing Aid is a considerable manufacturing problem. U. K. Ministry of Health employs about forty firms to do this work. They supplied about 196,000 sets upto January 1951 and were to supply additional 125,000 during this year. Some of our merchant princes were requested but they declined to bring the plant for the manufacture. Therefore, the U. K. Medical Research Council and the Ministry of Health, London were approached for guidance on the subject. We are very grateful to the Whitehall Ministry, for their letter, dated 27th February 1951 (a) enclosing a complete set of the specifications for the aid and its component parts including miniature batteries, (b) a complete set of drawings for the aid and its component parts and (c) data covering the Clinical Test Set referred to in (a) and (b). With these Specifications and drawings an approach was made to some merchants here, but there was no response. So I decided on the following plan of action.

1. Consider the research for the "Crystal" as Rochelle Salt Crystal used in U. K. unless hermetically sealed, will be liable to disintegrate under the wide changes in temperature and humidity met with in our country.
2. Manufacture of ear moulds.
3. Manufacture of batteries.
4. Reduction or abolition of customs duties by the Union Government.
5. Abolition or reduction of Sales Tax by the States Governments.

6. Approach several prominent U. K. firms, with a view to assemble the various miniature parts of the Medresco hearing aids and batteries in India and establish a servicing station for the same.
7. Approach firms in India, with a view to assemble the various miniature parts of the Medresco hearing aids and batteries in India, and establish a servicing station for the same.
8. Measures to reduce the present high price of about Rs. 475/- per set in India.
9. To go into details of any other connected matter.

In connection with the Crystal, National Physical Laboratory of India (N. P. L. O. I.) New Delhi, and the National Chemical Laboratories of India (N. C. L. O. I.) Poona, were requested for research co-operation and suggestions. The (N. P. L. O. I.) is investigating certain high Dielectric Ceramic materials to replace the Rochelle Salt Crystal. The (N. C. L. O. I.) has been growing piezoelectric crystals on an experimental basis but finds it not too easy to procure chemicals like ethylemaelamine for the same in sufficient quantities. With orders from the Union Government they would probably be able to build apparatus for testing the crystals. If we fail to get a satisfactory crystal the (N. P. L. O. I.) suggests the Rochelle Salt Crystal be completely sealed up in a case so that the moisture is prevented from entering the pick-ups or the microphone.

Stock ear plugs on the whole are unsatisfactory. But the ear plugs moulded to the exact shape of the patients' ear give better results, are more comfortable and prevent "feed back" that is, oscillation arising in the aid, because some of the sound waves escape from the ear plug, reach the microphone and are re-amplified by it, thus setting up a loud whistling sound. To overcome this danger, an impression in wax or some such substance is made of each individual patient's ear, a plaster case is made of the impression and then an earmould is made in an acrylic resin. It is in effect an operation similar to that of making on artificial dentures. This aspect of production can, therefore be fruitfully accomplished with the aid of our dental departments after importing large quantities of acrylic resins.

These Medresco Hearing Aids require constant replacement batteries of type D. 25, which does not have any other application. A Calcutta firm is willing to import regularly in refrigerated holds, till the demand is great so that they can manufacture it cheaply here, from two standard Penlite cells $1\frac{1}{2}$ volts. One can also use 22.5, 30 and 45 volts batteries.

On the question of abolition of customs duties, our general body passed a resolution at the 2nd Annual Conference held at Bombay, 1949 but the Union Government refused the concession asked for both in 1950 and 1951. These custom regulations were formulated about twenty years ago, when the application of Scientific instruments and the electronic goods was not so developed. The Government have persisted in high rate (37½%) of duty, while they have made separate customs clearance rules. These miniature radios (Hearing aids) have no usefulness, except for correcting the loss of hearing and thus alleviating the sufferings of millions of our Deaf. Now no sooner the General Election is over, we should take up the matter re-customs duties, with the Union Government and the Sales Tax with the State Governments.

Constantly the deaf public complains that these Electric Aids are very expensive, difficult to get serviced and the running cost of battery is high. Therefore, the matter was taken up with several U.K. firms manufacturing the various components who are willing to give us at reasonable rates, provided we assemble and service the same. It is heartening to note that one can get them in lot of 5000 numbers., excluding batteries customs duties and Sales Tax, at Rs. 136/- nett each. The firm will be willing to maintain large spare parts at their Indian Office, which will have an up-to-date after sales service facilities.

Till we interest our popular Government after the General Elections, I thought that the present high price of about Rs. 475 should be brought down. In this connection another Indian firm approached me and has kept the price at about Rs. 350 of an imported continental hearing aid. They further fell in line with me that as some people do not like the hearing aid in ten to fourteen days time, they should take the same back, and charge a small sum as hire.

I have been keeping the Union and Bombay Governments informed of the progress so far made. The Government of Bombay is keenly interested in it. I do hope our various

branches will make their local Governments, take more interest in the amelioration of deafness after the new Ministries are formed.

In the meantime our Colleagues in the various State Hospitals should bring about the creation of Deaf Clinic, Deaf Clubs with lip-reading teachers and so create a psychology for using electrical hearing aids when necessary.

The facilities which our hospitals offer are meagre in post-graduate studies of special subjects; yet the material available is plenty. It is highly desirable that either a post-graduate centre is established in States or working of different specialities be staggered at different hospitals for lectures and clinics. The Union Government has not yet come forward with a plan from the Council of India Post-graduate Medical Education; whom we had suggested among other things that diploma course should be half way house to Mastership Degree, and not abolished as by the University of Bombay.

The State Governments should be constantly approached so that the young special-diploma holders be encouraged and given appointments at the district headquarter hospitals, and higher qualified ones at the State capitals. Here it should not be out of place to say that in teaching hospitals with 300 beds or less there should be one E. N. T. Unit but if beds are more two full units be created. I may mention here that we should co-operate and reply to the general practitioner's letters, addressed to us at various hospitals, to enrich his knowledge and reduce the tax-payer's medical bills. But to do this the E. N. T. Unit should also have the services of a short-hand typist in the Out-patient Departments.

At the various international Scientific Congresses and Conferences one finds that the languages used are English, French, German and Russian; though four languages are official one finds that "English is the Linguafranca" of the World, not only in matters of Trade and Politics but in interchange of Scientific and Technical knowledge. Therefore we must press the claims of the English on Universities that though in 15 years we may be able to produce the scientific books with international terminology retained and so impart the knowledge in Hindi, yet our youth shall not be starved from the thirst of lingua-franca, the English, to reach the outside world and take

his rightful place in the councils of various Conferences. It is, therefore, imperative that English should be a compulsory subject in the higher secondary and college education.

Ladies and gentlemen, I thank you very sincerely for electing me your President for the Second time. Now I earnestly solicit your co-operation in all that we do here, to terminate our labours with success both in the scientific and social fields.

Chairman of the Editorial Board's report on the
Indian Journal of Otolaryngology, 1950—51.

Mr. President, Ladies and Gentlemen,

This year we are a little better financially, as our audited report shows in the October 1951 issue, chiefly due to the central contribution and advertisements. We have Rs. 3,698 in hand. I still find that most of the members do not send us original articles regularly. This lack of co-operation is the main cause of our not exchanging the journal with similar Foreign concerns. Please be prompt in sending the same and thus feeding the quarterly issues.

From the Lucknow donations, we bought a new typewriter. But what we want is an advertisement income. At present I find that Dr. C. A. Amesur and Dr. L. Hiranandani are the two members getting us the advertisements. I suggest that external joint editor and the various branches should help us more in getting these advertisements. In return we shall only be too pleased to contribute to the branches' finances 25% of the nett advertisement income derived from their area, provided if we are strained the Central office comes to our rescue.

We are grateful to Dr. N. K. Apte for regularly sending us the extracts and reviews of books.

Our most grateful thanks are due to Dr. C. Satyanarayana, the editor at Madras on whom has fallen the tremendous burden of the production of this pet quarterly Journal of ours. Please try your best to assist him in every possible way to make the Journal brighter from the New-Year.

(Sd.) P. V. CHERIAN.

Honorary Treasurer's Report for 1950—51.

With the advice and help of Dr. C. A. Amesur I applied and was awarded the Alexander Pigott Werner Memorial Fellowship in E. N. T. diseases to India for 1950—51. Therefore I had to leave for eight months for U.K. in December 1950 and delegated my functions to Dr. C. A. Amesur, a member of the Governing Body, for the Third Annual Conference held at Lucknow. I am grateful to you for re-electing me as your Hon. Treasurer for a further period of three years, (ii) and to the Governing Body to request Dr. C. A. Amesur, the President to carry out the duties of the Hon. Treasurer in addition to his own and systematise the accounts. Ladies and gentlemen he has done this very well and so strengthened our Finances.

Our balance on 1st Octr. 1950 was Rs. 2,932. To this is added the donations at Lucknow of Rs. 1,299. Those members who were in arrears were requested to pay under rule 6 (b) failing which the names of the defaulting members were removed under rule 6 (c). The Hon. Secretary will give you the details of these. By these means our splendid collections were Rs. 3,636. We contribute Rs. 2,482 to the Journal as per Madras (1948) and Lucknow (1950) resolutions, thus leaving a balance of Rs. 4,272 in branch. Please donate liberally for the Central Funds and advise drug trade to use the India Journal of Otolaryngology.

Once more I thank Dr. C. A. Amesur very much for the kind help and guidance given during the year under report.

(Sd.) R. A. F. COOPER,
Honorary Treasurer.

SECRETARIAL REPORT

During the current year one member resigned on account of health reasons; 18 ordinary and associate members were expelled under Rule 6 (c) for not paying their annual subscription for a very long time. 33 new members joined chiefly due to the exertion of West Bengal and Andhra colleagues. This brings the present strength of our body to 124 members.

The West Bengal State Branch was formed in February 1951. Dr. S. Roy is our Founder Member. We are grateful to our West Bengal colleagues to have inaugurated our Branch at Calcutta. The Andhra Branch was inaugurated by our

President Dr. C. A. Amesur in May 1951 with the splendid co-operation of two founder members—Dr. Thirumal Rao and Dr. Narasimha Rao. I may tell you that the formation of these branches have been due to the untiring efforts of our President (Dr. C. A. Amesur). We are now in communication with Mysore, Bihar and Uttar Pradesh, Hyderabad for formation of Branches there.

Dr. C. A. Amesur was requested by the Governing Body at Lucknow on 22nd December 1950, on account of our Treasurer Dr. R. A. F. Cooper's leaving for U. K. for a period of 8 months, to carry out his duties in addition to his own and systemise the accounts. It was at Dr. Amesur's pointing out that the members who were in arrears were requested to pay up the same thereby strengthening the finances of the Association. We are grateful to the members for giving us splendid donations at Lucknow which is clear from the audited statement of accounts published in our October 1951 issue. Our Journal account also shows some profit due to the advertisements from Bombay. We hope that our other colleagues at other Centres will also co-operate in getting advertisements for our Journal.

Local branches are taking more interest in holding clinical and social meetings. The local Secretaries are requested to furnish the summary of the proceedings to the Chairman of the Editorial Board for publication in the following issue of our Journal.

Our country is vast and it has been found that many of our younger practitioners find it very difficult to attend our yearly Conference for financial reasons. We, with all other Associations have approached the Central Government for giving the same travelling concession by train as they have been giving to the Members of the Indian Medical Association. The last representation has been made only recently through the President of the All India Medical Council Dr. Chunibhai Patel and I shall read before you the copy of the letter addressed to the Ministry of Health. I hope by next year this concession will be granted to us and we will be able to meet most of our colleagues.

I have been in communication with the Secretary General of the Fifth International Congress of Oto-Laryngology Dr. W. H. Struben of Amsterdam, Holland. We are looking

forward in getting the special programme of the fifth International Congress. I have also asked them to send me the provisional Constitution of International organization which was suggested by the International Committee at London in 1949. No sooner I hear about this constitution I shall place the matter before our Governing Body for amendments, if any.

I am grateful to our President (Dr. C. A. Amesur) for much help and guidance and to you all for the splendid co-operation given from time to time.

(Sd.) L. H. HIRANANDANI,

Hon. Secretary.

The Association of Otolaryngologists of India.

The Minutes of the General Body Meeting held at Calcutta,
on 20th December 1951 with the President
(Dr. C. A. Amesur) in the chair.

The Meeting of the General Body was held in the general lecture theatre Medical College, Calcutta, at 9-30 a.m. on Thursday the 20th December 1951. The following resolutions were passed.

1. Honorary Secretary read his Fourth Annual report. Moved by Major K. K. Ghosh and seconded by Major N. Dutt. "Resolved that the Fourth Annual Report (1950-1951) of the Hon. Secretary be approved". Carried unanimously.
2. Hon. Treasurer read his 4th Annual Report and placed the audited account for the year 1950-51 (published in October 1951 issue of the Journal) showing the head office closing balance of Rs. 4,271-1-3. Moved by Major S. Chatterjee and seconded by Dr. B. P. Lal "Resolved that the Fourth Annual report (1950-1951) of the Hon. Treasurer be accepted". Carried unanimously.
3. Dr. S. Roy moved and Dr. P. N. Sinha seconded. "Resolved that the Fourth Annual (1950-1951) report (including the journal's audited accounts for 1950-51 as published in October 1951 issue of the Journal) be accepted". Carried unanimously.

4. Moved from the Chair "Resolved that the branches of The Association of Otolaryngologists of India be given 25% of the branch members subscription with effect from 1st January 1951 or the date of the formation of the local branch whichever is later". Carried unanimously.
5. Moved from the Chair, "Resolved that the central contribution of the Journal should be 25% of the annual membership subscription with effect from 1st April 1951, provided supplementary grant is given in case of emergency". Carried unanimously.
6. Moved by Dr. R. N. Kacker and seconded by Dr. Tulsi Das "Resolved that M/s. Sharp and Tannan, Chartered Accountants, Honorary auditors of Bombay be thanked for their kind services rendered and are requested to render the same for the year 1951-1952". Carried unanimously.
7. Moved by Dr. S. G. Joshi and seconded by Dr. R. V. Rao "Resolved that M/s. K. John Ltd., Chartered Accountants, Honorary auditors for the Indian Journal of Otolaryngology, Madras be thanked for their kind Honorary services rendered for the year 1950-1951 and are requested to render the same services in the year 1951-1952". Carried unanimously.
8. Moved by Dr. R. N. Kacker and seconded by Dr. S. Roy that the 1951 edition of the Memorandum of the articles and rules and regulations of The Association of Otolaryngologists of India, with the printers errors corrected as in rule 27, be approved and copies forwarded to (i) Registrar of Companies, Bombay (ii) Lloyds Bank Ltd., Bombay-1, (iii) Canara Banking Corporation, Ltd., Madras and (iv) to every member of the Association". Carried unanimously.
9. Moved from the Chair "The Conference places on record its grateful appreciation of all help and facilities given by Dr. D. C. Chakravorthy, Principal of the Medical College, Calcutta for holding the Fourth Annual conference". Carried unanimously.
10. Moved from the Chair (a) "This Conference resolves that Union Government be requested again that the electric hearing aids and its accessories should be imported customs free on humanitarian grounds". (b) This conference resolves that the Union and State Governments be requested

that the electric hearing aids and its accessories be exempted from the operation of the Sales Tax on humanitarian grounds". Carried unanimously.

11. Moved from the Chair "The Association views with great concern the tendency of certain State Governments various Universities, and All India Medical Council taking a retrograde course of action by trying to integrate E.N.T. work with general surgery and it, therefore, resolves at its Fourth Annual Conference that Indian Medical Council, the State Governments, the Universities concerned as well as the Union be moved immediately to withhold such measures which are detrimental to the interest of this speciality as well as of the public alike.
Resolved further that all State Governments as well as the Union be moved to run special E.N.T. Department both in the teaching and non-teaching hospitals in cities as well as in district towns and that they be staffed by properly qualified E.N.T. Specialists, who practice this speciality only". Carried unanimously.
12. Moved from the Chair and carried unanimously. "This Conference places on record its grateful appreciation of the splendid social and Scientific arrangements made by the members of the West Bengal State Branch, for holding the Fourth Annual Conference during the time of country wide General Election and Medical examination".
13. Hon. Secretary then reported that under rule 13(a) he had only received one nomination paper for the Presidentship proposed by Dr. C. A. Amesur and seconded by Dr. R. N. Kacker "That Dr. S. Roy of Calcutta be elected the President". After scrutinizing, the Chair declared Dr. S. Roy's unopposed return as President. Delegates approved with plenty of cheers.
14. Hon. Secretary then reported that he had received only one nomination for the vacancy of the Associate Secretary proposed by Dr. S. Roy and seconded by Dr. P. N. Sinha that Major K. K. Ghosh be the Associate Secretary. After scrutinizing the Chair declared Major K. K. Ghosh's unopposed return with applause.
15. Hon. Secretary then informed that under rule 11(c) only Patna has invited us for the Fifth Annual Session in December 1952; and Madras, Hyderabad (Dn.) and

Amritsar for the Sixth Annual Session. Dr. S. Roy moved, Dr. R. N. Kacker seconded and Dr. B. K. Sengupta supported "Resolved that the Patna invitation for The Fifth Annual Session for December 1952 be accepted with thanks". Dr. S. G. Joshi suggested that the spirit of his Lucknow (1950) amendment was not being carried out. Chairman pointed out that rule 27 (on page 14 of 1948 memorandum or on page 14-15 of 1951 edition) lays down that an amendment to the constitution should be carried by not less than two-thirds of the members on the Register and that at such meetings members may vote by proxy.

He pointed out what happened at Lucknow. "Moved by Dr. C. Satyanarayana and seconded by Dr. L. Hiranandani that the decision of the Venue of the Next Conference (i.e. of 1951) be left to the new Governing Body. Carried unanimously. Dr. S. G. Joshi suggested that some opinion of the House must be left for the guidance of the Governing Body. Then he proposed and Dr. J. V. DeSa seconded that it shall be the policy of this Association to hold its annual sessions at the same place, wherever and whenever possible as the Association of Surgeons of India and the Anaesthetists of India and the final selection of the Venue shall be left with the Governing Body. This was put to vote and carried by eleven in favour and eight against". The present Chairman points out that this is mandatory for one year and cannot be considered as amending the constitution. Major K. K. Ghosh, Dr. R. N. Kacker, Dr. P. N. Sinha, Dr. S. Roy, Dr. Tulsi Das and others spoke. Then the substantive resolution moved by Dr. S. Roy was put to vote and carried unanimously.

16. Moved by Dr. L. Hiranandani and seconded by Dr. R. N. Kacker. "We place on record our sincere thanks for the excellent services Dr. S. G. Joshi has rendered to the Association during his membership of the Governing Body in the capacity of Associate Secretary for the past twelve months". Carried unanimously with applause.
17. Then Dr. R. A. F. Cooper eulogised Dr. C. A. Amesur's work during second term of office as President and moved "We place on record our greatest appreciation for the excellent work Dr. C. A. Amesur had done in not only strengthening the finances of the Association and opening new branches

but also in helping the reduction in prices of the Electric Hearing Aids". The resolution was seconded by Dr. S. Roy and carried unanimously.

18. Then the donations for the General funds were asked for and Rs. 1,250 promised.
19. Subjects for the 1952 and 1953 Conferences were invited.
20. It was the feeling of the House that the Local Secretary or the Honorary Secretary, should circularize the resolutions before the business meeting at the annual sessions.
21. The retiring President Dr. C. A. Amesur then handed over the charge to the new elected President Dr. S. Roy and the meeting terminated.
22. Under rule 14 (b) the newly elected Governing Body went in Session immediately at the end of the Conference under newly elected President (Dr. S. Roy) and elected (i) Major K. K. Ghosh as the Associate Secretary and (ii) under rule 11 (d) Dr. P. N. Sinha as Local Secretary for Patna.

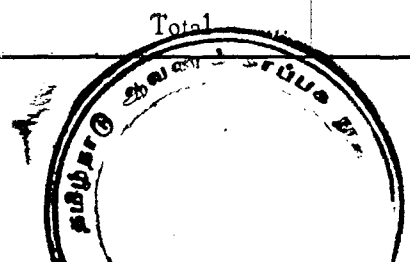
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Vol. IV, No. 2

June 1952

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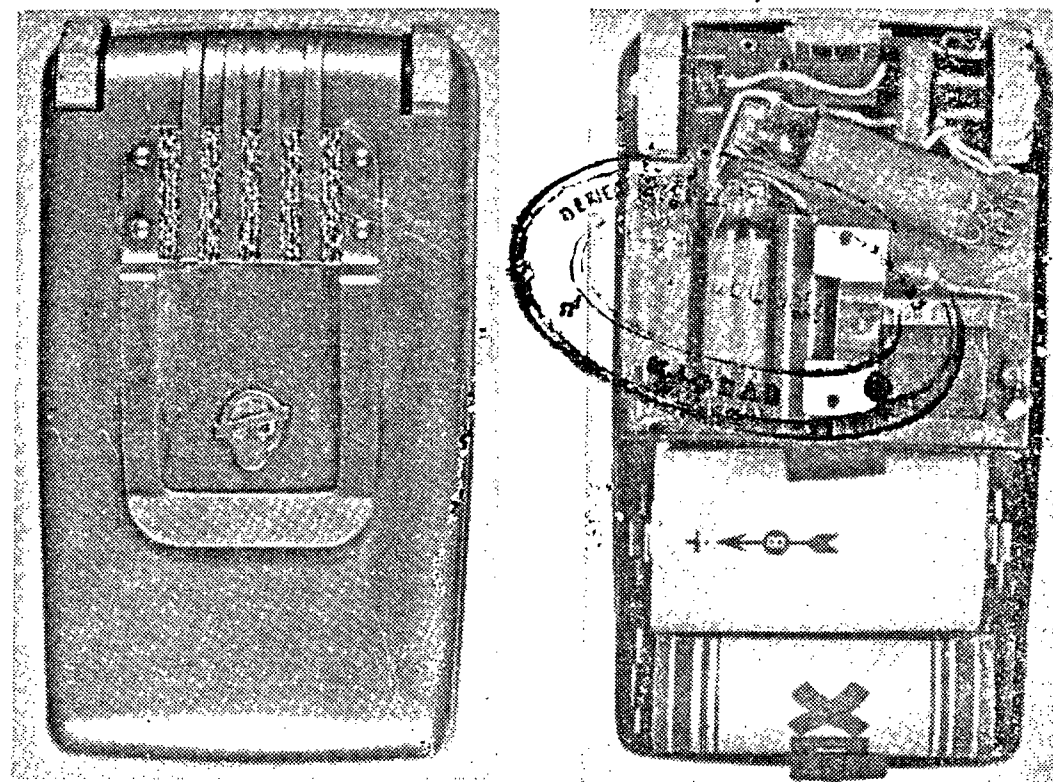
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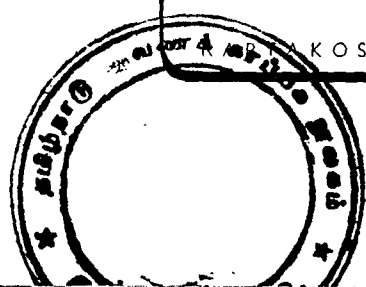
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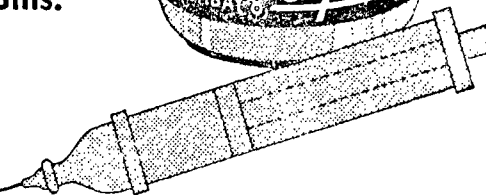
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CONTENTS

	Page
Cancer of the larynx Dr. L. H. Hiranandani, F.R.C.S. (Eng.)	... 55
Symposium on Modern Trends in the Treatment of Paranasal Sinusitis Major K. K. Ghosh, Calcutta.	... 60
Abstracts	... 87
The Association of Otolaryngologists of India	... 91
The Association of Otolaryngologists of India (Andhra Branch)	... 97

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Official organ of

THE ASSOCIATION OF OTOLARYNGOLOGISTS OF INDIA

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JUNE 1952

No. 2

Cancer of the larynx

BY

L. H. HIRANANDANI, F.R.C.S. (Eng.)

Since my experience in carcinoma of the larynx is confined to three years only, I feel hesitant to write on this subject.

The selection of the subject has been inspired by the opportunities I have had to deal with cases encountered at the Topiwalla National Medical College and in my private practice. I am fully conscious of the fact that while the subject has been exhaustively dealt with by the laryngologists of the West, the literature in India has been rather limited.

At the onset, let me express my grateful thanks to my late chief Dr. H. D. Gandhi whose intimate knowledge on this subject stands out unique in India.

I will now discuss briefly the subject itself :—

Sex and Age :—In 90 cases of carcinoma larynx seen at the hospital and in private practice 84 were confined to males and 6 to females which come to 93.3% to 6.7%. This is quite in conformity with the figures of other authors. As regards age, all patients were above 35 years, maximum incidence being between 50 and 60 years.

The youngest patient seen by me was a 13 years old boy who was admitted for acute laryngitis at K. E. M. Hospital when I was the House Surgeon in charge. This patient was transferred to the Hospital for infectious diseases with a provisional diagnosis of laryngeal diphtheria. He was sent back with no improvement. He developed suppurative perichondrites of thyroid cartilage which was incised. The granulomatous mass sent for histopathological examination revealed squamous cell carcinoma grade III. Within next three months the patient died.

Aetiology:—Much speculation has centered round aetiology of this disease. No convincing evidence has yet been offered about any pre-disposing cause. I did not succeed in obtaining new knowledge which threw additional light on the subject. Only five cases had history of previous laryngitis and in one case carcinoma had superimposed on healed gummatous laryngitis.

Pathology:—In my series I have taken the usual classification of intrinsic and extrinsic carcinoma, the intrinsic being where growth involves not more than true vocal cords. Out of 90 I saw, only two cases were intrinsic. These were the only cases suitable for laryngofissure. Operation was refused and the cases were lost. Out of the remaining 88, 20 have been operated upon. Of the rest, fifty were unsuitable for operation or any palliative Radiotherapy. They came with extensive extrinsic cancers with fixed metastasis in glands which were fungating in some cases. All of them were in emaciated condition. Out of the remaining 18 who were advised laryngectomy, only 12 had deep X'ray therapy at some places but they came back without relief with added ill-effects of deep X'rays and at the same time begging for operation when nothing could be done.

Out of 70 non-operated cases, biopsy was done only in 30 and the results were as follows:—

20 Squamous Cell Carcinoma: 1 Adenocarcinoma.

gr. i	gr. ii	gr. iii	gr. iv
5	7	12	5

Out of these 20 operated cases, preoperative biopsy was done only in 7 and they belonged to grade ii. Post operative biopsy from the specimens removed showed gr. ii-13, gr. iii-7.

All these patients had growths which were not only extrinsic cancers but had involved good portion of pharynx and oesophagus. Three of them had palpable freely movable glands in neck and two had involvement of skin through thyroid cartilage.

Clinical Features:—Operable cases—It was surprising to see how patients did not complain of symptoms of more than three months duration and the usual symptoms of more than three months were: hoarseness, pain in the ear, difficulty in swallowing, discomfort in throat. One case came with previous tracheotomy.

Inoperable cases showed malignant cachexia and agony written on their expression. Two of these cases, came with previous tracheotomy.

Diagnosis:—Provisional diagnosis was made from symptoms alone. Indirect laryngoscopy confirmed the diagnosis in all these cases. Direct laryngoscopy however in these cases was not necessary.

It seems that while many patients complain of the characteristic early symptoms of hoarseness, ear pain and sticky sensation in the throat, they are mistaken for ordinary laryngitis, otitis and other commonplace ailments of ear, nose and throat. Such mistaken diagnosis proves fatal to the sufferer who in reality suffers from Cancer and who therefore are too late to seek proper treatment at the hand of the specialist.

It may just be causally mentioned that due to financial and other handicaps diagnosis by the aid of X'rays was not resorted to.

Treatment:—Some form of irradiation or surgery are the only means of approach to treatment.

Surgical treatment being laryngofissure, laryngectomy with partial oesophagectomy or epiglottidectomy.

While appreciable results have been shown by those who confine the treatment by radiation, in my humble opinion I feel I cannot share much optimism. Cases referred by me for palliative irradiation have revealed no special benefits. In fact they returned with agonising symptoms of radiation necrosis.

Surgery still stands paramount as the treatment of choice. I however refer patients for irradiation who are not suitable for laryngofissure and in whom laryngectomy is contraindicated by age or general condition.

(a) While passing I may merely mention that in my opinion suitable case for laryngofissure would be that in whom the growth is limited to middle or anterior part of one freely movable vocal cord.

Anaesthesia:—The anaesthetic of choice at the Mayo Clinic is local anaesthesia. The choice is preferred because in their opinion they prefer the patient to be conscious during the operation in order that blood while trickling down the trachea

may easily be coughed out. Also they consider general anaesthesia difficult to control since anaesthetic is administered through a tracheal Cannula.

My experience has convinced me of the practicability of general anaesthesia. I use either. The trickling down of blood to the bronchi is easily controlled by surrounding the tube with gauze pack.

In this connection I have felt importance of proper anaesthetist for which I am grateful to Dr. Ambardekar and Dr. Janak Mehta.

I employ general anaesthetic as a routine followed by local infiltration with adrenline 1 in 1000. 10 drops of this added to one ounce of 1% Procain, for the double purpose of minimising haemorrhage and reducing shock.

Preoperative Treatment:—Antibiotics have eliminated the prerequisite dental care. Blood transfusion was necessary only in two cases. Preliminary tracheotomy has never been found necessary by me.

Operation:—(a) I have so far done one Epiglottidectomy through Thyro—Hyoid Membrane in a forty years old woman, for localised growth of epiglottis. It is now 8 months since the operation and I am glad to mention that she is in perfect health.

A female aged 50 had hypopharyngeal Cancer involving larynx. In this case total removal of larynx with 2" of Oesophagus was accomplished. The diagnosis was Carcinoma grade iii. After 8 months due to localised recurrence, she has been treated with interstitial radium, I am indebted to my colleague Dr. R. T. Desai for this treatment. At this present stage, reconstruction of Oesophagus is still not attempted and will consider feasible at later stage.

In the remaining 18, total laryngectomy with partial removal of pharynx and oesophagus has been done. One case was turned out to be inoperable, on the table.

Usually when partial excision of Pharynx and Oesophagus is done, reconstruction of above parts is considered difficult. While this may be so, at least I have been successful in restoring completely their physiological continuity except for little inconvenience of a temporary fistula.

I have succeeded in reconstructing Oesophagus with the aid of a even smaller posterior wall which was possible to save after excision. In none of the cases, stricture of the tube resulted, impending deglutition. The time for the operation used to be 3½ hours. In my recent 12 cases it has taken one hour.

Post Operative Treatment:—The treatment followed was this: (i) 100,000 units penicillin 4 hourly for 7 days (ii) Sulphadiazine tablets 3 grams a day for 6 days. (iii) Repeated aspiration of Bronchi through tracheal opening. This has been a very helpful procedure as it keeps the patient comfortable and controls lung infection.

Feeding:—Feeding was started 8 hours after the operation through Oesophageal tube, until the fistula completely closed, the food items recommended were milk, eggs, fruit juice, rice and dal water, and mutton soup.

Results:—Only one post operative death occurred amongst 20 cases. This unfortunate patient succumbed one month after the operation due to advanced stage of the disease and undernourished general condition which resulted in breaking down of stitches giving rise to development of extensive hypoproteinimonia. The facility of supplying proteins by parenteral route being not available, the patient's condition proved fatal.

Out of the total cases on whom I have operated nine are healthy after a period varying from three years to three months of operation. Six patients are untraceable. Five are dead.

My experience covering a period of three years only may not be considered conventionally to have warranted a definite conclusion, but at the same time from my cases I feel with a broad outlook, extensive surgery and judicious application of modern concepts, favourable results are possible to be achieved in treating surgically cases of Cancer Larynx.

I thank Dr. Vengsarkar, Dean of National Medical College for allowing me to publish the records of the Hospital.

Symposium on Modern Trends in the Treatment of Paranasal Sinusitis

INTRODUCED BY

Major K. K. GHOSH (Calcutta.)

I very much appreciate the honour shown to me by my colleagues in this city in calling upon me to introduce the subject of "Modern trends in the treatment of Sinusitis". But I must confess at the outset that I do not feel very happy with the title of the subject matter. Having been reared up in the older school of thought, with my moorings firmly anchored in past traditions and teachings, I do not look upon the word "modern" with kindly grace, for the word often denotes a contempt for the past without even acknowledging the debts which we owe to the older pioneers who gave all their thoughts and attentions to the topics and by their unending devotion, in spite of repeated failures, helped to arouse problems which gave the necessary impetus to all our recent advances in knowledge and technic. We are, in fact, inclined to take our present state of knowledge for granted, and when we think of the generation which have preceded our own, we are apt to do so with a sense of superiority and of pity for their mistakes rather than with a sense of humility and admiration for their achievements. But the knowledge which we now accept so easily was not acquired all at one piece but painfully, laboriously, step by step—just as painfully, laboriously and step by step as we ourselves are groping towards a brighter light. I would have been happier therefore, if the subject was entitled "Recent trends in the treatment of sinusitis". This remark of mine is not meant to cast any reflection on my younger colleagues and friends in the speciality but just a reminder that many of our new discoveries are but the revival of things which were perhaps known but forgotten or not particularly cared for.

Probably the germ from which sprang our present knowledge and interest in the subject was an article written by Mr. A. Lowndes Yeates in 1924 entitled "Methods of estimating the activity of the ciliated epithelium within the nasal sinuses". It somehow fired the imagination of investigators and led to a recrudescence of interest in the whole subject

of nasal physiology. Co-ordination followed—resulting finally in the more systematic application of physiological principles to a none too satisfactory therapy. In practice however, physiological principles and processes are still being treated as something academic which could be disregarded when the problem was one of eradicating infection. The unsatisfactory results of radical surgery has now forced us to examine the physiological processes more closely and to apply them carefully in the evolution of treatment. Today we are learning anew the principles of conserving tissues and functions wherever possible and are finding it more practical to suit our procedures to the requirements and not invariably to go the limits on the mere basis of supposed thoroughness.

Among the trends of recent times, the clear appreciation of the role of ciliary activity, in maintaining the health of the nose and sinuses is of first importance. They are primitive structures surviving anything which does not destroy the epithelium. They are powerful in their effect and they behave in an orderly manner. They are our best allies in the prevention and removal of infections and they cannot be indiscriminately done away with if nasal health is to be maintained. It has further been proved by the works of Proetz, Hilding and Van Alayea, that active ciliary movements are present even in gravely infected sinusitis and they can come back to full function if the load thrown on them by the infective processes be removed by installing proper drainage and ventilation. The mucous membrane which lines the cavities of the nasal sinuses should therefore be regarded as a defensive membrane with capabilities of carrying on indefinitely and of returning to the normal state under favourable conditions. The place of radical surgical procedures for sinusitis has thus become quite restricted in recent times. The discovery and application of antibiotics and chemotherapy have given us powerful weapons for combating infections and have undoubtedly diminished the incidence of serious complications known to arise from a sinus infection. Although it has not replaced surgery, it has made surgery safe for the patients wherever surgical procedures are indicated. It has by now outgrown the enthusiastic role given to it in the immediate past and has now come to occupy a more rational and scientific position in the treatment of sinusitis—particularly in the acute stage. The method of application of these drugs will be discussed in detail by subsequent speakers.

Another fact of importance which has emerged from our knowledge and appreciation of the ciliary mechanism of the nose and paranasal sinuses is that no interference is justified in the regions of the natural ostia of the sinuses and older methods of irrigating sinuses through their natural ostia have practically been given up in the management of acute sinusitis. The trauma of such interference is likely to aggravate the oedema round about the ostia and cause further blocking of drainage with resultant aggravation of symptoms. Our past failures in the treatment of sinusitis led us to a more detailed and careful study of the histopathology of the diseased sinus as a result of which we have now come to realise that two distinct varieties of sinusitis exist, with two different etiologies and quite different lines of treatment. The accepted classification with occasional individual variation, as you are all aware, falls under two main headings (1) Suppurative and (2) Non-Suppurative to which a third may be added as mixed type which means infection superimposed on a non-suppurative type. These conditions will be dealt with more fully by subsequent speakers and I need not dilate on them here.

Another factor which has helped us a great deal in gaining better knowledge about sinus conditions is the improvement in the X-ray technic and proper interpretation of radiograms. A decision about treatment of sinus disorder is seldom made without a proper X-ray these days.

As a result of these advances—we have begun to recognise more and more that sinusitis in children is fairly common and many of the common upper respiratory tract complaints in children are attributable to a sinus infection. Whether this sinusitis in children is primary or secondary to presence of adenoids is more a matter of personal conviction and I need not enter here into the pros and cons of the arguments often offered in this connection.

When we come to the question of treatment of chronic sinusitis we find that the recent trend advocates less and less radical surgery than what was advocated a decade ago. It must however be confessed that there are a number of cases in everybody's experience which call for radical surgical procedures. The radical operation on the maxillary antrum undoubtedly gives good results in the properly selected cases but the same cannot be said about the treatment of chronic frontal sinusitis.

In spite of all the recent advances in technic the possibility of maintaining a constantly patent frontonasal duct is even now problematic. It is my personal opinion that unless some complications threaten or actually arise radical operation on frontal sinus should give place to less radical measures such as correction of a high deviation of the nasal septum, fracture or resection of part of the obstructing middle turbinate or intranasal removal of anterior ethmoidal cells or polypii, thereby ensuring fair drainage and ventilation of the frontal sinus. Of course in every case of frontal sinusitis the antrum should be explored and washed out to make certain that it is not causing or maintaining the blockage of the natural frontal sinus drainage.

The association of sinus disease with lower respiratory tract infection particularly chronic Bronchiectasis, is a real one and in my experience calls for radical surgical procedures at a comparatively early stage. Though bronchiectasis definitely improves after such a procedure but once the bronchiectatic changes have become established, sinus surgery offers only a temporary relief.

MODERN TREND IN THE TREATMENT OF CHRONIC PARANASAL SINUSITIS IN GENERAL

By Major N. DUTT (Calcutta.)

The successful treatment of chronic sinus diseases is based on three factors:—Firstly proper conception of the anatomy, physiology and histopathology of the parts involved, secondly facts which contribute to the development of the chronicity and its persistence, lastly how these contributory factors could be eliminated for complete eradication of the disease.

I would therefore like to deal with a few salient points in respect of each of these before approaching the subject of treatment.

Anatomy:—The infundibulum and the region of the middle meatus which gives passage to the physiological secretions from the normal sinuses and products of inflammation from the diseased ones (anterior group) to be thrown into the nasal chambers should always be inspected for any of the following anatomical abnormalities. These abnormalities give rise to the

blockage of the passage leading to obstruction of drainage and lack of ventilation of the sinuses. These anatomical abnormalities are as follows:—

(a) High septal deviation, (b) a large cell in the middle turbinate, (c) a cell in the uncinate process, (d) a large cell in the bulla ethmoidales, (e) displacement of the middle turbinate laterally. Oedema and hyperplasia of the middle turbinate, though not anatomical abnormality, also contribute to deficient drainage and ventilation of the sinus by mechanical obstructions should also be remembered in this connection.

Physiology:—The mucous membrane of the sinuses contains ciliated epithelium which is covered by a blanket of mucus. The bacteria and any offending microscopic body are first of all enmeshed in the mucus and then expelled from within the sinuses into the nasal chamber and from within the nose into the pharynx. Proetz has shown that the effectiveness of ciliary activity is greatly hampered by the presence of inflammatory exudate which creates a gravity current neutralising ciliary current and not by the virulence of the organism. The ciliary movement has been demonstrated from grossly infected suppurating sinuses. The ciliary activity is paralysed by drying and cold.

Histopathology:—Chronic nasal sinusitis can be classified into three main groups:—Chronic hyperplastic or allergic and chronic suppurative, a third mixed group is also recognised where infection has been grafted on allergy. Hyperplastic sinusitis are evidenced by thickened connective tissue with oedematous infiltration of the stroma, round cell infiltration, dilatation or compression of the glands and thickening of the blood vessels. The force of gravity distends the dependent parts forming polypoid excrescences. In hyperplastic ethmoiditis recurrent polyposis may be found in the middle meatus.

Chronic suppurative sinusitis is characterised by inflammatory changes of the submucosa, proliferation of the epithelium, granulation tissue in places where epithelium is denuded. The epithelium may change from ciliated to transitional or squamous type. Hyperplastic and chronic suppuration may coexist or occur independently of each other. The former types become more resistant to treatment if allergic background is overlooked. The exudate in chronic ethmoid and sphenoidal sinusitis has a tendency to dry and form crusts.

Treatment:—Treatment of chronic sinusitis falls principally into three categories; non-surgical, conservative surgery and radical surgery.

The non-surgical sinus treatment depends upon increasing the patients resistance to infection by all available means *e.g.* good food containing adequate quantity of vitamins specially A & C, sufficient rest, good hygiene and regular habits.

Local treatment should be directed to the measures which secure efficient drainage and ventilation of the sinuses, and this can most satisfactorily be attained by application of $\frac{1}{2}$ to 2% of ephedrine sulph in normal saline in the region of sinus ostia. A small gauze tampon soaked in the solution should be kept underneath the middle turbinate and kept there for 5-10 mins. After removal of this suction or displacement method of Proetz may be applied to remove the secretion from within the sinuses.

Syringing the nasal chamber with mild alkaline lotion is of value in keeping the cavity free of irritating discharges and indirectly decongesting the mucous membrane of the osteal region thereby establishing the drainage. The syringing lotion I have found most efficacious is in the proportion of sodibicarb. grs. 5 sodiborate grs. 5. sucrose grs. 5. in an ounce of water.

Silver proteins *e.g.*: Protargol or Argyrol at 2-10% strength have got the stimulating effect on the glands which empty themselves increasing the secretion and indirectly washing the mucosa.

Prolonged use of vasoconstrictors should never be encouraged. It is always followed by secondary vasodilation of the deeper venous sinuses more than the sub-epithelial vessels leaving the mucosa blanched. This secondary vasodilatation is more prolonged than the primary constriction.

Vasoconstrictors should only be recommended preliminary to the displacement treatment and other surgical measures. The patients must not be entrusted to the free use of it.

Sulphonamides and Penicillin:—The sulpha drugs and penicillin, though very efficacious in the treatment of acute sinusitis are of no value in the treatment of chronic ones. Chemotherapy should therefore not be used in chronic sinusitis in preference to the other methods.

Physio Therapy:—Short-wave diathermy has been widely recommended for chronic cases. Special form of applicators are used on the different sinuses up to the tolerance of the individual without injuring the skin. The heat generated should be comfortable and not irritating. 5-15 minutes use every day for five or six days should give complete relief of the pain and discomfort. If it fails, some other methods should be tried and it should be discontinued.

Irrigation by Puncture and Lavage:—The lotions used for irrigating the sinuses should be compatible with the normal ciliary activity. Proetz has shown that distilled water is definitely irritating to the mucosa; it destroys cilia. He recommends a solution of 4% of alcohol and 4% Glycerine in normal saline.

S. Burtoff recently studied the comparative therapeutic value of the following solutions; these were:—(a) Isotonic solution of sodium chloride. (b) 5% sulphathiazole in iodised oil. (c) 5% sulphathiazole in saline solution. (d) Penicillin in saline solution in different strength—250, 500 and 1000 units per c.c. and he found that none of these solutions were more effective than saline solutions in chronic sinusitis of non-allergic type. In sinusitis secondary to allergy even the isotonic saline solution was of no value. I have found very encouraging results by the use of simple normal saline as the irrigating lotion without any addition of sulpha or penicillin. Penicillin has definitely got its place in acute sinusitis when used parenterally.

As a preliminary step in the treatment of chronic sinusitis antral puncture and lavage is of prime importance. After one or two irrigations the antral pus is prevented from flowing over the middle meatus, thus the cause of irritation of the mucous membrane of the frontonasal duct is removed, pus from the frontal sinus and ethmoidal cells escapes, the cause of irritation from within the sinus is removed; the mucous membrane settles down, cilia regain their activity and the sinus returns to state of normalcy. In early cases of chronic Fronto-ethmoidal sinusitis, the surgical intervention can thus be avoided provided there is no anatomical abnormality in the region of the middle meatus as mentioned before.

Displacement method:—Proetz has revolutionised the non-surgical treatment of chronic sinusitis by introducing what he calls the displacement method, by which any fluid can be

introduced into the nasal sinuses very easily if the ostea are patent. The principle of the displacement method is this—that if a liquid is introduced in a cavity so as to completely submerge the mouth of another cavity opening into it and mild suction be applied to the first cavity and any other openings to be closed the air in the second cavity is sucked out and the fluid flows down to take its place. The fluid remains in the sinuses for 24 to 96 hours. This method is effective for cleansing the mucosa of nasal sinuses, loosening the inspissated secretions and bringing about drainage of infected sinuses provided the ostea are patent and the mucosa not polypoid. Patency of the ostea can be ensured by packing the superior and middle meati few minutes before instillation with cocaine and adrenalin. This treatment cannot take the place of surgery, where mucosa is polypoid or radical treatment is otherwise indicated. In intractable cases small amount of argyrol added to the solution some times gives beneficial result.

Treatment by negative air pressure:—Principle of this treatment is hyperemia of the mucous membrane lining the cells and the mechanical removal of the secretions. The local nutrition is thereby improved, cell resistance and leucocytosis increased and the infective process checked.

Conservative sinus surgery:—Conservative sinus surgery aims at establishment of aeration and drainage of the sinuses with preservation or restoration of the sinus mucosa rather than removal or destruction of it. Radical sinus surgery on the other hand means destruction of a portion or the whole of the sinus or the removal of large parts of bony wall or lining mucous membrane.

Conservative surgery would therefore be the correction of septal deformities, removal of ethmoidal polypi and drainage of ethmoidal cells rather than total exenteration and making an antro-nasal opening. In majority of the cases these procedures will lead to the removal of blockage of the fronto-nasal duct giving proper aeration and ventilation of the ethmoidal and frontal sinuses. Many techniques for the intranasal fronto-ethmoidal operations have been developed but the principle of all of them remains the same, i.e. the ethmoidal cells are the key to the frontal sinus operations and if they have been properly removed, the passage into the sinus will remain clear. There is no need of using frontal sinus rasp for dilating the canal; its use leads to closure of the duct by excessive bone formation.

Indications for Radical Fronto-Ethmoidal Surgery:—External fronto-ethmoidal operations as advocated by Ferris-Smith in America and Howarth in England are indicated in cases of external fistulae, tumours, intracranial complications, bone necrosis and severe orbital complications. By this procedure anterior and posterior ethmoidal cells and even the sphenoidal cells can be approached.

In chronic maxillary sinusitis where repeated puncture or lavage with $\frac{1}{2}\%$ ephedrine sulph in normal saline has failed to cure the malady, intranasal antrostomy followed by daily lavage with the solution may cause the complete disappearance of the symptoms. In intractable cases, inspection of the interior of the sinus is imperative. This can very well be done by Caldwell Luc operation. There is various modifications of this operation advocated by Denker, Canfield and Ballenger etc. The type of operation to be followed is to be judged by the individual merit of the case at the discretion of the surgeon. I personally prefer Caldwell Luc operation when surgical treatment of chronic maxillary sinusitis is needed.

The present trend of thought in the treatment of chronic sinusitis is less emphasis on surgery and more on the allergic background. General treatment of the patient is to increase the body resistance by good diet, vitamins etc. and this should always get precedence over any surgical means. Minor surgical procedures *viz.* puncture and lavage of the maxillary sinus will very often change the whole picture of sinusitis even pansinusitis one.

When I am forced to do any surgical intervention in chronic sinus cases I always prefer external operation to the internal one.

In conclusion I offer my sincerest thanks to you all for giving me a patient hearing. I am afraid I have not been able to tell you any thing new to you; you are already thoroughly conversant with the modern trends in the treatment of chronic sinusitis. I am sure you have developed better methods in medical managements and operative technique in the treatment of your cases. I thank you ever so much again.

FRONTAL SINUSITIS.

By Dr. B. K. SENGUPTA (Calcutta.)

It is difficult to deal with my subject in such a limited time. But my task has been made easier by my previous speakers, Major K. K. Ghose in introducing the subject of sinusitis, Dr. N. Banerjee in his management of acute sinus infections and by Major N. Dutt in his dealing with chronic sinus disease in general.

I fully endorse the views of the previous speakers about the modern trend of the treatment towards conservative methods and preservation of the mucosa, which is the most important factor in dealing with the infection. I shall, therefore, talk about the treatment of acute and chronic frontal sinus in some detail.

Before proceeding further, I would like to point out that frontal sinus surgery had been and still is, a bugbear to the E.N.T. Surgeons. This is due to its anatomy—its composition of compact and cancellous bone, its relation to brain and meninges and presence of direct communication by venous channels leading from the sinus to the intra cranial vessels.

In these days of chemotherapy and antibiotics, incidence of the most dreaded complications of frontal sinus surgery, like osteomyelitis of the frontal bone—has been minimised and surgery on this sinus made safer. Still the modern trend has swung towards conservative methods and surgery is undertaken only when conservative methods fail and complications threaten.

Even when surgery is called for, one should do minimum damage to the sinus wall and mucosa, particularly in the region of ostia and aim at establishing maximum drainage.

As usual, frontal sinusitis is considered under following groups:

- A. Suppurative (1) Acute (2) Chronic.
- B. Non Suppurative or Allergic.
- C. Mixed.

Treatment of Acute Suppurative Frontal Sinusitis.

General:—Rest in bed, good food, plenty of fresh air, vitamins, particularly A and C. analgesics—for relief of pain.

Specific:—Chemotherapy and antibiotics. Penicillin should be given in high repeated doses. But before the first dose is given, it is advisable, if facilities permit, to collect little discharge from the region of the middle meatus and do a cultural examination and sensitivity test. If resistant type is found, antibiotics should be changed accordingly. In fulminating type chemotherapy should be combined with the penicillin therapy.

Local:—The general principle is to establish and maintain good drainage and ventilation of the sinus.

(a) If the sinus is draining fairly.

Inhalation of steam with Tinct. Benzoin. Co or with alcoholic Sol. of Menthol. Sprays or drops of 1% Ephedrine Hydrochlor in normal saline into nose several times a day.

Cocaine is no longer the drug of choice; though initially it produces good effect, it always causes marked secondary vasodilatation and prevents drainage and ventilation. Further, it also damages and impairs the ciliary activity.

(b) If the sinus is not draining satisfactorily.

We put pledgets of cotton wool soaked in 2% Ephedrine Hydrochlor in normal saline or 10% Argyrol solution in the middle meatus and keep it for 10 minutes 2-3 times a day according to the need. Inhalation, sprays and drops are continued as usual. This treatment, along with systematic Penicillin is continued.

The maxillary antrum on the diseased side is usually involved and acts as a reservoir of pus. It is punctured by trocar and cannula and is washed out with normal saline, after few days of conservative treatment. This relieves the congestion in the middle meatus and establishes a better drainage of the frontal sinus. Antral lavage is repeated as necessary.

If by these methods efficient drainage is not established and symptoms are not relieved, the headache persists, puffiness and redness increase, then in order to establish drainage and prevent complications one should trephine through the non-cancellous portion of the floor of the sinus. The mucous membrane of the sinus should not be interfered with, except that part which

bulges through the trephine opening, which alone should be cleanly nicked to let out the exudate and relieve pressure within the sinus. A small sized catheter or a Polythene tube, if available, is introduced through the opening into the sinus cavity and fixed to the forehead with adhesive stopping. The sinus is irrigated once a day with Penicillin 2000 units per c.c. of normal saline. This tube is retained till the normal drainage is established.

In fulminating cases, the progress of the disease is so rapid that if the disease is not checked by Penicillin and conservative treatment, one should drain the sinus through the floor by trephining earlier instead of continuing conservative treatment.

Usually these measures are adequate provided no other complications develop.

Excepting this measure no other intranasal or extranasal surgery is done these days. If, however, there is a definite localised abscess with definite fluctuation then the pus should be drained by a suitable incision.

Deep X-ray therapy has been claimed to have good success. But we have not tried this and hence are not in a position to give any opinion as to its value.

As regards short wave therapy we are of definite opinion that it should not be given if the drainage is not satisfactory, as it produces congestion and oedema of the mucosa and further jeopardises the drainage.

When acute condition has subsided a thorough check up for any mechanical obstruction in the nose should be done.

Treatment of Chronic Suppurative Sinusitis:—Without going to the cause of chronicity and pathological change that take place, I would like to say that we must examine the patient thoroughly to detect the presence of any mechanical obstruction, e.g. high deviation of septum, bullous middle turbinate, granulation, polypi etc.

With the removal of these mechanical obstructions and use of decongestive drugs into the nose together with the building up of patient's resistance by a good food, fresh air, etc. a certain percentage of cases is cured.

In these cases short wave therapy is also useful. In majority of cases, maxillary sinus, together with ethmoids are involved. In these cases one should remember that the maxillary sinus is the "Master Sinus". With efficient treatment of this sinus, infection in other sinuses clears up. In this group of cases one should never think of surgery of the frontal sinus without first of all properly treating the maxillary sinus—by repeated antral lavage and intranasal antrostomy. While in training in U.K., I have seen eminent surgeons regretting times without number for having taken recourse to radical surgery for this sinus. In my little experience, I find that a Howarth type of operation should be the choice. The main difficulty in this operation is to keep the opening patent. However big the original opening is made it always tends to get stenosed. I have no experience of skin grafting. I cannot therefore go into the merits and demerits of this method. In the few cases that we have done we find that if periodic dilatation is carried out the duct can be well kept patent with continued relief to the patient.

Obliterative operation:—We have not done any. I feel that excepting a very few cases conservative operation of Howarth gives good result.

B. Non Suppurative or Allergic:—This is due to a local manifestation of generalised condition. Treatment of this group consists in treating the general condition with anti-allergic drugs and local treatment 1% Ephedrine Hydrochlor in normal saline.

C. Mixed:—In this group there is super-imposition of infection on allergic condition. The management lies in the same line as that of chronic suppurative variety together with the treatment of the allergic condition. It is the non recognition of this general cause that always leads to failure in treatment of many cases of chronic sinusitis.

Major S. CHATTERJEE, R.A.M.C. (R).

Maxillary Antrum:—The maxillary antrum is the key to all sinus infections as in my experience I have seldom found a case of paranasal sinusitis in which the antrum was not involved. With proper treatment and eradication of infection

of the antrum other sinuses like the ethmoids or frontal improve remarkably without any interference.

Acute Maxillary Sinusitis:—The treatment of acute sinusitis has been very amply dealt with by the previous speaker and there is hardly anything further to be said about it. There are however one or two points I would like to say a few words about.

Since the advent of chemotherapy and antibiotics the management of such cases have been made much easier but that very ease of management has in its train brought some difficulties and dangers. The main trouble is that relief is obtained early and there arises a masking of symptoms while the infection is not totally eradicated. As soon as the pain and actual discomfort is relieved the patients think that the disappearance of residual symptoms will follow as a matter of course and are usually unwilling to continue treatment any further. The economic factor *viz.*, the cost of treatment, specially with the more recent oral antibiotics like Aureomycin and Terramycin or even with Penicillin and Sulphonamides, is also a great factor. The physician often has to acquiesce in the cessation of treatment in the absence of any subjective complaints from the patient for fear of being accused of trying to prolong it for his personal pecuniary benefit. Even at the risk of repetition it must be emphasised that chemotherapy or antibiotic therapy, to be effective, must be given long enough, and in adequate dosage. Even after successful treatment a thorough check up is imperative. The usual methods of examination including transillumination is used and a radiological examination should be done wherever feasible. Here also the economic factor is the greatest stumbling block.

Surgical Interference:—The need for surgical interference in the shape of puncture and lavage at an early stage of the disease practically does not exist these days. This procedure is reserved for the sub-acute cases that is those with persistent symptoms even after adequate therapy and here very often one or two lavages make all the difference between a cure and an acute infection turning into a chronic one.

Retention of the canula or a suitable tube after puncture and periodic installation of penicillin under strict aseptic precautions is a very useful procedure for these cases. This

however requires hospitalisation or nursing home condition and in the present state of hospital services in this country, it is not a practical proposition in the majority of cases.

Early chronic:—This is rather an ill defined category but I usually reserve this classification in my mind for those cases in which there are no acute symptoms like pain etc. In the patient's own language there was a cold which he or she took a long time to get rid of. History is usually counted in months and a feeling of heaviness in the head, occasional thick discharge either from the nose or post-nasal, with intermittent blockage of the nose are the usual symptoms. To my mind it is these cases that need the most careful detection and management because at this stage we have fairly good hopes of preventing that dreadful condition, late chronic sinusitis.

Management.

1. **Decongestion and encouragement of drainage:**—Apart from the usual nasal drops, sprays etc. I have found Displacement Therapy as advocated by Proetz useful for these cases. I use a 2% ephedrine solution in normal saline or in the more intractable cases in 10% argyrol solution. I have however not found the Proetz syringe a convenient instrument but use an electric suction pump instead. Treatment is usually carried on for about a week daily and then at longer intervals for another two/three weeks. If a cure is not obtained by this time it is usually not worthwhile persisting any further as surgery is probably indicated.

2. **Short-wave Therapy:**—If available and within the means of the patient this is a very useful procedure. There may be a little flare up with aggravation of symptoms for the first two or three sittings but there usually is marked improvement after that. I usually begin with about five minutes for the first sitting increasing to about 20 minutes at the fourth or fifth. The interval is alternate days or every third day for the first three sittings and thereafter daily till at least 9 to 12 sittings, both the time and number of sittings and the interval of course varying with individual cases and the reaction and response obtained.

I have used these two methods in combination in a large number of cases in the Army where I had both the opportunity

and the facilities to do so and I found the results quite encouraging. Since coming back to "Civvy Street" I have not been able to use this method to any great extent as adequate facilities are lacking.

3. **Lavage:**—Although theoretically repeated puncture and lavage is a good way of treating these cases, I have found it difficult in practice and so reserve this procedure for diagnostic purposes only. Patients in our country usually have a dread for operative procedures of any kind and in my experience, even with patients in the Army one does not often come across a patient who would willingly submit to half a dozen punctures and lavage. The first puncture and lavage gives us a lot of useful information as to the condition we are dealing with and I usually take the opportunity of injecting lipiodol after the lavage and take a skiagram. Apart from the help in assessing the condition of the antrum I have observed a therapeutic effect after injection of lipiodol. My attention was drawn to this quite accidentally when I injected lipiodol in a Dental officer in one of the group of Hospitals under my care. The skiagram showed a fair amount of thickening of the mucosa but the patient's subjective symptoms improved remarkably and for a period of about two years during which I had the opportunity of observing him at intervals he was absolutely free from any symptoms. Unfortunately I have lost touch with him since then and am not in a position to say how long the improvement lasted. Since then however I have observed such improvement in other cases also.

As in the case of acute sinusitis a thorough check up after treatment is imperative in these cases if one hopes to obtain good results.

4. **Chemotherapy and antibiotics:**—Unless there is an acute exacerbation I have not found these of any use and I neither use nor advocate their use in this condition.

5. **Adjuvant Therapy:**—(a) **Vitamins:**—I have found vitamins specially Vitamin 'A' in therapeutic doses a very useful addition to our armamentarium in tackling these conditions and use it as a routine.

(b) **Vaccine and Non Specific protein Therapy:**—These prove useful adjuncts in a certain proportion of cases.

(c) Infected Tonsils and Specially Adenoids—This is a very controversial issue where only "fools would rush in". I feel however that in presence of infected tonsils and adenoids along with sinusitis, the sinus is not always primarily responsible and it is certainly worthwhile removing infected adenoids and even infected tonsils and observe the effects on the sinus infections before going in for operative interference on the antrum in such cases.

Late Chronic Cases:—Here the treatment is entirely surgical as we put this label only to cases which have a definite long history, usually counted in years, with supporting radiological evidence, or to those cases of early chronic sinusitis which fail to respond to conservative measures and were probably optimistically labelled as such. With better understanding of nasal physiology in recent times the tendency is to be more and more conservative and the earlier enthusiastic attempts at extensive surgical procedures to achieve thorough eradication of infection is being rapidly given up.

Intranasal Antrostomy:—This is a very useful surgical procedure and except in the very intractable cases is usually adequate in the large majority provided the opening is large enough and is kept patent. The purpose is to provide good dependent drainage and after that is done interference in the shape of lavage should be kept to a minimum as in my experience too frequent and specially too early attempts at lavage instead of helping to keep the new opening patent have the opposite effect.

Caldwel Luc Operation:—This operation is reserved for cases that fail to improve with the simpler operation or for those cases which in the judgment of the surgeon are unlikely to clear up with the intranasal operation.

A badly deviated septum which interferes with the drainage of the antrum or with the proper performance of an intranasal antrostomy should be corrected and any associated dental sepsis attended to.

Allergy:—You must have been wondering why I had not mentioned this vexed question of allergy so far but let me assure you that this has been a mistake of commission and not of

omission. Most if not all cases of sinusitis have an allergic factor and specially in chronic sinusitis there is almost always a combination of allergy and infection.

As to the treatment of this factor in sinusitis however from palliation with the various anti-histaminic drugs till now available and the time honoured methods of auto-lavage therapy or desensitisation with non specific proteins I can say very little indeed. This is due to the fact that we in this country have not yet even made a beginning in the tackling of this problem. We lack essential data like seasonal charts for various parts of the country, proper analysis of possible allergens present in the various dusts - urban, rural, and industrial - preparation of standardised and reliable extracts of pollens, dusts, etc. for testing and for desensitisation. This is a vast problem quite beyond the scope of the poor specialist alone and either the state or private enterprise in the shape of the Pharmaceutical Industry must come forward to the aid of the specialist as they have done elsewhere, before we can be in a position to say anything about the treatment of the allergic factor in sinusitis which would be applicable to all conditions.

Conclusions:—With a better understanding of nasal physiology conservatism is the keynote in the modern trends in the treatment of sinusitis. The aim of medicine certainly must be to eliminate surgery, except perhaps the traumatic, and cure ailments by medication, and since the advent of lavage therapy and antibiotics we are certainly travelling firmer on that path in the field of nasal sinusitis.

SINUSITIS IN CHILDREN.

By Dr. P. R. DASGUPTA (Calcutta)

The subject of sinusitis in children is taken up as a separate one because it presents some special problems in diagnosis and treatment. Till lately the problem of sinusitis in children or even its existence was ill understood. Probably many cases of frequent "catching of colds, of recurrent sore throat, recurrent otitis media etc. were treated on the basis of the particular part affected without going into the question of the cause of such recurrences. But in the recent years the problem of sinusitis in children has attracted more careful attention.

from the Otolaryngologist and much has since been discussed and clarified about the etiology, pathology and complications of all the things that helped us to a better understanding of the problem. Two things require special mention; first better method of taking X-Ray pictures and their proper interpretation and secondly better methods of examination and investigation.

Before starting with sinusitis itself I think it would be wise to remember that practically all the sinuses are present at birth which gradually go on increasing in size with the age. The frontal is the only sinus absent at birth and appears later (1.3 years). It is of the size of a small pea at 7th year and its infection is so rare in the age group under consideration that it would hardly come in our discussion.

Maxillary sinus is of course mostly involved. A fair estimate of the incidence of the sinusitis in children is said to be about 20%. The age most frequently affected are between 5-8 years.

Time would not allow me to discuss the signs and symptoms peculiar to children suffering from sinusitis nor I can go into the details of special methods of examination and diagnosis.

I would start straight with the treatment which we carried out in such cases and found most satisfactory.

We divide the sinusitis in children as usual into: (1) Suppurative: (a) Acute. (b) Chronic. (2) Non-Suppurative—Allergic. (3) Mixed-Allergy and infection combined.

Maxillary Sinus:—This is the most commonly involved sinus but an acute attack with retention of pus and general constituent symptom is very rare; atleast I have not seen one. When it occurs the treatment follows the same line as described by Dr. Banerjee previously.

Chronic maxillary sinusitis is the commonest and is best discussed under three separate clinical groups: (1) Chronic Catarrhal Sinusitis. (2) Chronic purulent or muco purulent sinusitis of not very long duration. (3) Chronic purulent discharge of a very long duration.

Chronic Catarrhal Sinusitis

General measures:—(1) The first step to be adopted in the management of such a case is to take off the child from school for 2-3 months to stop further re-infection in the school. (2) Other general measures to be adopted consists in providing the child with good food, plenty of fresh air, healthy surroundings, vitamins and if possible a change of place.

Local Measures:—(1) It is vitally important to teach the child to blow the nose properly and to keep it clean. It is positively harmful to sniff the pus backwards into the naso-pharynx. If one takes a little trouble to find out, he will be surprised to find how often a child does not know how to do this simple act correctly because he was not taught the correct method. (2) Decongestion of the mucous membrane with $\frac{1}{2}\%$ ephedrin saline drops and if cooperative, inhalations. (3) Proetz displacement treatment and short wave—if necessary.

These cases usually clear off with this simple and conservative measures. I shall mention more of Proetz displacement treatment and of short wave in the discussion of next group of cases.

(2) Purulent or Mucopurulent Cases of not Long Duration:

General Measures:—Same as above, including training of the child in blowing the nose correctly.

Local Measure:—(1) Shrinkage drugs-nasal drops and inhalations. (2) Proetz displacement treatment—with this treatment we could not get unqualified success as its originator claims. In our experience not very many cases have improved. The treatment may be of help in subacute cases, where decongestion helps ventilation of the sinus. But our impression is that in chronic cases this treatment does not help much. However it is not a bad plan if the clinician favours, to give it a trial. If the method fails he may try the other method to be described below—i.e. the antral lavage.

Antral lavage with or without instillation of a suitable antibiotic in our experience gave good result and to my mind is the method of choice.

The technique we adopt to wash out the antrum and antra and to instill antibiotic I would like to describe in full.

The child is put under general anaesthesia and the antrum is punctured. A 10 c.c. syringe with sufficient normal saline is fitted to the outer end of the cannula by means of an adapter and the saline is gently pushed in the antrum and then sucked back in the syringe. The colour of the return fluid and its contents are noted. This fluid is sent to the laboratory for culture and determination of sensitivity to antibiotics.

The antrum is now washed out. In doing this a Boyle Davis's gag is applied and the mouth of the child opened, the child being in Rose's position. Anaesthetic is continued through the Davis's Gag. The head end of the table is lowered and the antrum is gently washed out with Higginson's Syringe. While the irrigation goes on the anaesthetist or a nurse keeps on efficient sucker going in the nasopharynx to suck out any fluid that may enter and collect in the lowest part of the nasopharynx. After the wash out a polythene tube is put into the antrum through the cannula and the cannula is taken out leaving the polythene tube in antrum. It is then fixed on antrum the cheek with adhesive plaster. Both antra can easily be done in one sitting. (Fig. 1)

Children tolerate the presence of the tube very well. Only time when they resent it and pull it out is when the child is recovering from anaesthesia. It is desirable for a nurse to be with the child at that time and to control the child from pulling out the tube and later on it is no bother to the child and he is quite happy with it.

Subsequent to the operation the antrum is washed out every day through the polythene tube with a 10 c.c. syringe and penicillin introduced. We used to introduce penicillin in the strength of 20,000 units in c.c. of saline once daily. If necessary we used some other antibiotic later on depending on the bacteriological report of the sample of the aspirated fluid.

Majority of cases clear up nicely by about the end of 3rd or 4th day and at about the end of a week the fluid is sterile.

Some authorities advocate systemic penicillin along with this local treatment. Their argument is that local instillation of penicillin can only act on the organisms lying on the surface, but in a chronic case, the organism lie much deeper and to

attack these organism lying at the depth of the m. membrane systemic penicillin should be given. We never used penicillin systemically in these cases and our own impression is that it is not necessary.

There are others who do not use any antibiotic and rely only on wash outs and claim good result.

The standard of cure should be when the patient is completely free from any of the symptoms and signs of antral infection and when the X-Ray is completely clear.

The Problem of Adenoids:—In majority of these cases adenoid is present. I do not like to go here into the controversy of whether adenoid is primary and causes the sinusitis or it is secondary due to the sinus disease. But I am quite clear in my mind that if the adenoid is grossly enlarged and infected one should remove it. In border line cases one may give the conservative treatment a trial and see what effect it makes on the sinus infection and on the adenoid. On the result of this trial, decision to remove the adenoid may be made.

Another controversial point is - when to remove the adenoid?

I entirely agree with those who are unwilling to remove it in cases where the sinusitis is active with lots of mucopus. I think it is surgically unsound to do this operation in a septic bed. In these cases the best plan would be to start with the treatment of sinusitis and when the condition becomes somewhat improved and comes under control the adenoid should be removed. In other cases the whole surgical procedure—I mean the removal of adenoid, antral lavage and insertion of polythene tube can easily be done in one sitting.

Tonsils:—The same idea of primary and secondary tonsillitis as in adenoid prevails. To my mind it should be dealt with exactly in the same line as discussed in the problem of adenoid.

Short Wave:—A few words on this treatment. In chronic cases it is a good adjunct. It has got no specific influence on bacteria and acts merely by raising the temperature and increasing the blood flow. One warning against its use is never to use it in acute cases, when the drainage is

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insufficient. It produces oedema of the mucous membrane and likely to block the drainage which is already in a precarious state in acute conditions.

Group III:—In the third group we take the children with purulent discharge but of long duration. X-Rays shows uniform opacity or fibrosis or the thickening of lining membrane. This type gets Bronchitis, Bronchiectasis and Fibrosis of the lung.

Treatment

General:—Same as in above groups.

Local:—Daily lavage with antibiotic instillation through polythene tubes. It should be tried for a longer period as long as one thinks there is chance of recovery.

If it fails or the child is having other complications e.g. in lung, the question of surgery should be considered.

What should be the nature of the surgery? Here also we find two entirely separate groups. One advocates intranasal antrostomy but its opponents among other things argue that particularly in a child it closes rapidly as the bones are in the process of growing. The other group prefers and always does Caldwell Luc operation. They also admit that in children this operation is not an unqualified success. According to them it is better, if possible to wait till permanent incisors are erupted.

In my experience of a small group of these cases we never had to resort to either of these two operations in a child and I am afraid I am not in a position to give an opinion as to the choice of the operation.

Allergic & Mixed Cases:—(1) Treatment of pure allergic cases is practically the same as in adults and does not require any special discussion. (2) In mixed cases-treatment of allergy should be simultaneously continued with that of infection.

Convalescence:—When recommending a change of climate to these cases one should remember that a relatively cool and dry atmosphere is the most beneficial, while a hot and relatively dry atmosphere is the most harmful. This has been found both by clinical observation and by animal experiment.



Breathing Exercise:—During convalescence another important point deserves mention. If the child is a mouth breather and when the doctor sends the child for convalescence after the treatment is over, he should instruct the mother to see that the child carries out some sort of exercises every day with the mouth shut. This is very important and should not be neglected. Otherwise the child being in the habit of breathing through the mouth may not change his or her formed habit to nose breathing.

Ethmoid Sinus Disease:—The ethmoid cells are well developed early in childhood and diseases of these sinuses are by no means rare.

Acute Ethmoiditis:—The typical clinical picture of a case of acute ethmoiditis in a child is shown (Fig. II) Words would not describe it so well as in this picture (Fig II).

Treatment:—Absolutely conservative.

General:—Rest, good food, fresh air etc. as usual.

Penicillin:—The treatment is started immediately with high doses of penicillin. Before the first dose is given the pus from the nose should be sent to the laboratory for culture and determination of the sensitivity of the organism to penicillin. If laboratory report shows penicillin resistant organisms, other suitable antibiotics must be used.

Local:—Decongestion of nose by ephedrine drops or spray with or without inhalation.

Maxillary Lavage:—One should do this without fear under penicillin within a few days. Our method was to insert polythene tube in the antrum at the first puncture and then daily wash out with introduction of penicillin through this polythene tube without any discomfort to the child and with very satisfactory result.

A note of warning is not to do any active surgery in these cases. Because of our ill understood pathology in the past, Surgeons used to do external surgery in such cases with harmful results.

The external surgery is required only when there is a localised abscess formation with fluctuation above the inner canthus.

In such cases if the abscess is not opened it may burst externally leaving a small fistula. The fistula usually heals if the maxillary lavage is successful.

Chronic Ethmoiditis:—Adequate treatment in acute stage prevents the occurrence of this condition in majority of cases.

In chronic cases it is to be remembered that maxillary antrum is the "master sinus" and successful treatment of this sinus brings about reduction in infected neighbouring sinuses e.g. "Ethmoid".

DISCUSSION

Dr. R. A. F. Cooper (Bombay)—I heard couple of speakers saying that draining and washing of sinus they would like to postpone till a later date and rely mostly on anti-biotics. I am afraid in such cases they would abuse the quantity of anti-biotics to bell the organisms in the fluid, as the efficiency of the anti-biotics is reduced to one-fourth when they have to act on organisms in secretions. What would happen will be that in such patients systemic infection will be minimised and within a couple of days after cessation of treatment, the auto-infection will bring about the attack once more. This is the surest way of turning acute into chronic infection.

Lately great stress has been laid on eosinophilic count of centrifugalised sinus antral washings. This helps a lot in confining or eliminating to some instance allergic sinusitis.

As recommended by one of the speakers short wave diathermy given in 5 or 7 sittings according to my opinion will have no effect. Gentlemen you may as well not give at all. For any physiotherapy to be effective you need atleast 15 sittings. I dictate to the physiotherapist for my patients that they should give minimum fifteen sittings and last 8 sittings of 30 minutes each.

In obstinate cases of sinusitis, in spite of availability of so many antibiotics, and chemotherapeutic drugs, auto-vaccines have yet great value. The old standing vaccine therapy helps in many cases and it should be given a fair trial.

Dr. V. S. SUBRAMANIAN (Madras)

- (1) Treat sinus infection with combined anti-biotics and antihistamine drugs.
- (2) Penicillin aerosol for sinus infections has an important place in sinus treatment.
- (3) Aureomycin therapy for Virus infection of sinuses
- (4) Sinusitis in children is usually due to ethmoidal sinuses and I am in favour of Proetz displacement for all such sinus infections in children.
- (5) Nasopharyngoscopy is very useful in diagnosing which sinus is at fault.

P. N. SINHA (Patna)

Anatomical peculiarity:—Those who have got narrow meatii or those who have got spur are the victims of sinus diseases. In my series of cases I use infracted rays after the acute symptoms have subsided.

I saw one case of a child with a foreign body in the nose which caused the child to be suffering from sinusitis. I saw one case of the retrobulbar neuritis and one case of iritis and they were found to be suffering from sinusitis in routine check up. They were treated and cured.

I combine streptomycin if a patient is not cured by Penicillin and antrum lavage through culture report may be sterile. It applies more to people who are undergoing treatment for atrophic rhinitis.

Dr. C. A. AMESUR (Bombay)

Our West Bengal Colleagues have splendidly presented this subject. Sulpha drugs still have a value in infections with gram negative organisms. Locally I use Albucid Nasopharyngeal solution of Schering (that is 10% sulphanamide). Sulphonamides are bound to blood plasma but antibiotics are not. On the otherhand antibiotics are able to penetrate blood

coagulum, but sulphonamide do not. Nasal discharge is tested against the sensitivity to both Penicillin and Streptomycin and the required antibiotic is used locally as well. In addition I give Aureomycin by mouth. Nisim is not yet available here and therefore not used. Local lavage of antra and ethmoids is easily done. But for the frontal one has to use Dobrzanski's guarded needle by perforating the floor of the frontal sinus while the eye is closed. Then after aspirating the pus by 10 c.c. record syringe and introducing 2 to 4 c.c. of the antibiotic solution.

I may here also mention that infected antra after cauterization of the base of the rhinospoidum do very well with the antibiotics locally.

Tilly and Schattock, my old teachers, described antrum infection by *aspergillus niger* but these are not seen on the West Coast of India.

In chronic cases free, permanent and spontaneous drainage should be done.

ABSTRACTS

A REVIEW OF TUBERCULOSIS OF THE UPPER AIR PASSAGES DURING THE PAST 30 YEARS, AND ITS TREATMENT BY STREPTOMYCIN.

By F. C. ORMEROD, London.

(*Journal of Laryngology & Otology*, July 1951.)

There has been a steady decrease in the incidence of tuberculous lesions in the upper respiratory areas in Great Britain during the past 30 years, as evidenced from the statistical data from Brompton Hospital, and Midhurst Sanatorium. This has been attributed to improvement in the general level of social welfare, to the facilities for earlier diagnosis like introduction of mass radiography etc., and to the improvement in treatment.

In the period after world war I, artificial pneumothorax was being used in an increasingly large number of patients. About this time phrenic crush and avulsions were done more frequently to immobilise the diaphragm. From 1925 the operations on the thoracic cage viz., thoracoplasty, thoracotomy with division of adhesions, and various forms of apicolysis were being developed. From 1930 onwards the surgery of immobilisation of lungs made great progress. Statistics show that as the number of operations of immobilisation increased, the secondary lesions in the throat decreased.

The period of greatest incidence of tuberculosis of the larynx is in young adults between 20 and 30 years, the decade 30-40 years being the next frequent one.

Prior to the advent of Streptomycin, the only measures which had provided any real curative effects were galvanocantery and complete silence imposed on the patient. Cures were obtained only in those cases where the pulmonary condition responded to treatment but not otherwise. The advent of Streptomycin has provided a means of frequently curing tuberculosis of larynx far superior to anything previously available.

It has been found that administration of 3 grammes a day was injurious to both cochlear and vestibular systems. 2 grammes a day damaged many vestibular systems but did not damage the cochlea. 1 gramme a day produced some transitory vertigo but no permanent bad effects. Administration of sodium salt of para-amino salicylic acid in doses of 15-20 grammes a day prevented the formation of tubercle bacilli resistant to streptomycin.

This is important because these patients are liable to undergo surgical interference later, and it is essential that they should be susceptible to good effects of streptomycin.

Libermann and Lell treated 31 cases by intramuscular injection and everyone improved.

Larronde applied streptomycin as an aerosol spray, using 1 gramme in 20 c.c. of saline. He applied this 3 times a day to 12 patients and reported one cure, 8 very much better and the rest remained either the same or deteriorated.

German and Mako used 1 gramme a day and stated that much of the improvement occurred in first three weeks and all of it in 6 weeks.

William McKenzie reported 12 cases treated with 1 Gm. a day; of these 6 were cured, 5 improved and 1 did not respond.

Winn of Springville Sanatorium in California gives half Gm. of Streptomycin every 72 hours and 5 Gms. of para-aminosalicylate of sodium three times a day for 6 months, and had obtained very satisfactory results.

Improvement begins early and is dramatic in acute cases specially where there are ulceration and pain on swallowing. The extremely severe pain is abolished in 3 or 4 days and now there is no need for injection or section of sensory nerves of larynx. The sensitive part of the tuberculous ulcer is in the active part immediately under the undermined growing edge. Streptomycin has effect on this sensitive edge of the ulcer. It has slower but marked effect on oedema, and on granulo-tuberculous change and on nodular infiltration. Its action is least marked in old lesions with fibrosis. The majority of cases attain the maximum benefit after receiving 40-60 Gms. but others continue to improve upto 100 Gms.

In the most satisfactory cases the appearance of larynx returns to normal. In others where there is much swelling especially of ventricular bands and arytenoid process, there will remain some residual thickening, though the active disease disappears. Movement of vocal cords usually returns unless there is ankylosis of cricoarytenoid joint. The voice is greatly improved or returns to normal.

R. P. VYAS.

AN INVESTIGATION INTO NASAL HAEMORRHAGE

By HAROWITZ.

Journal of Laryngology and Otology, April 1951.

In the course of investigation Dohlman 1938 drew attention to microscopic findings in biopsy specimens taken from Little's area. He found absence of inflammation and poor attempt at healing. From this he concluded that in the aetiology of nasal haemorrhage in addition to more pathologic conditions there were certain indigenous factors which have to be taken into account, but he had not mentioned what these factors were.

In order to find out these factors the author examined a series of hundred consecutive cases of nasal haemorrhage at Glasgow Royal infirmary. In each of these cases, the following investigations were done (1) Ascorbic acid level (2) Prothrombin time (3) Serum calcium (4) Coagulation time (5) Bleeding time. Site of the bleeding area was also noted. Cases presenting an apparent pathological cause were also taken as it was felt the one or the other endogenous factors might increase the number of attacks.

Estimation of ascorbic acid was carried out according to method described by Harris & Ray and urinary ascorbic acid before and after administration of 300 mg. of ascorbic acid on two consecutive days was done. From this result scurvy can be excluded if the second sample of urine contained double the concentration of first.

Prothrombin time was done by method described by Quick Stanley Brown and Bancroft. This is done by adding Ca and thrombokin to oxalate plasma and the time required for its addition until the appearance of the clot was the prothrombin time.

Clotting and bleeding time were also done.

Haemorrhage from the nose was divided into anterior or posterior by means of a vertical line arbitrarily drawn through middle of inf. concha.

Discussion:—Out of 100 patients examined 59 were males and 41 females. In 65 previous haemorrhages has occurred and in 35 it was the first occurrence.

Out of these 100 patients 20 had both ascorbic acid level and prothrombin time normal.

70 patients showed subnormal ascorbic acid level and 40 showed prolonged prothrombin count. 31 patients had both subnormal ascorbic acid level and also prolonged prothrombin time.

In order to find out whether deficiency of ascorbic acid and prothrombin was prevalent in certain age groups, the patients were divided into 3 groups (1) upto 15 years (2) 15 to 40 years (3) above 40 years.

70 patients with subnormal ascorbic acid were thus divided, the largest number (36) was in third group, i.e. above 40 years. Similarly for prothrombin the largest number was in the third group and smallest in the first. Thus deficiency was in the older age group.

Serum Ca content was normal in all patients. Coagulation time was prolonged in 7 cases out of which 4 had subnormal ascorbic acid and one prolonged prothrombin time.

Bleeding time was normal in all cases.

There were 67 anterior haemorrhages and 33 posterior. Anterior haemorrhages were all septal and occurred in younger age groups, i.e. below 40 and post haemorrhages occurred from lateral wall of the nose and were in older groups above 40.

Therapeutic Measures:—In the first instance bleeding was controlled by packing and cauterization of bleeding area.

All patients who showed deficiency of vitamin C and prothrombin were given 200 to 300 mg. of vitamin C and 15 mg. of vitamin K daily for 4 weeks. Twelve months after conclusion of treatment patients were asked to write whether they had any recurrence. Only 46 replied; of these 46, 3 patients had one attack and two had several recurrences.

Comment:—Clinical and laboratory findings have shown that primary wound healing depends to a certain extent on vitamin C content. It is shown by experiments that a systemic deficiency of vitamin C producing ascorbolic or prascorbolic state definitely affects wound healing.

The extremely high incidence of ascorbic acid and prothrombin deficiency in patients with nasal haemorrhages and the gratifying clinical results attending the administration of vitamin C and K suggests that these vitamins have a definite place in the management of nasal haemorrhage.

V. A. DESAI.

ANTI-ALLERGIC METHODS USED IN THE RESTORATION OF HEARING DURING CHILDHOOD.

By JONES, Sisson, BELLUCI & EDMONDS (Jr.)

Annals Otol. Rhinol. Laryng. 60; 1085-1099 (Dec. 1951.)

Allergy also affects the ear and can cause impaired hearing. The prevention, improvement or cure of impaired hearing can be achieved by anti-allergic measures.

It was revealed that hearing acuity in children of 5-15 years age group is slightly less than that of adults; this was mostly noticeable in lower tone range. This difference is attributed to regression of the adenoid tissue with advance in age. Recurrence of adenoid tissue after adequate surgical removal was seen in those cases where irritative or infective factors persist.

Serous otitis or involvement of the eustachian tubes by allergy lead to hearing impairment. Meniere's syndrome is a vasomotor labyrinthitis. Otosclerosis become apparent about the age of puberty; it must have begun in early childhood.

Allergic symptoms are caused by emotions e.g. fear, physical changes in atmosphere e.g. cold, barometric changes, inhalents e.g. pollen, dust; bacteria and ingestents e.g. eggs, fish. The last group has proved to be the principal offender in the series of this study.

S. S. DOUNDE.

The Association of Otolaryngologists of India

3 Amarchand Mansion,
Mayo Road, Fort, Bombay-1.

The Fifth Annual Conference will be held on 22nd, 23rd, and 24th December 1952, at Patna, and will be graciously opened by His Excellency the Governor of Bihar.

Please let the Local Secretary and myself know at your earliest convenience:

1. (a) Whether you want us to make arrangements for your lodging and Boarding?
- (b) How many attending?
- (c) Coming by Air or Rail?
2. Are you reading a paper? or demonstrating something special? If so, the heading of the Title be sent now and a copy of the manuscript to me by 25th November 1952.

As I.M.A. Conference will follow on 26th December 1952, those of our members who are I.M.A. members can get railway concession single Fare return journey.

Members are requested to inform me *immediately* what papers they promised to read or wish to read at our Fifth Annual Conference to be held at Patna on 22nd December 1952. H.E. the Governor of Bihar will open the same.

The Local Secretary Prof. P. N. Sinha, P.W. Medical College (Eye E.N.T. Deptt.) Patna (Bihar) would like to know how many of you are coming, including members of family, whether vegetarian or not. Dr. P. N. Sinha will send you the authority slip for railway concession in any class (single fare for return journey). Please communicate with him on this subject now for details.

It will hurt me to remove your name from the Members Register, if you have not paid your current years subscription, inspite of our Four reminders this year, by the end of September 1952.

L. H. HIRANANDANI,
Hon. Secretary.

FIFTH ANNUAL CONFERENCE AT PATNA

from 22nd December 1952.

Office Bearers of the Reception Committee.

<i>Chairman</i>	....	Prof. D. Ram
<i>Vice-Chairman</i>	....	Prof. P. N. Sinha
<i>Hon. Gen. Secretary</i>	....	Dr. A. K. Sinha
<i>Treasurer</i>	....	Dr. A. K. Guha
<i>Joint Secretaries</i>	....	Dr. B. N. Jha Dr. K. D. N. Agrawal
<i>Members</i>	....	Dr. R. H. Sinha Prof. T. B. Gupta Dr. S. M. Mohsin Dr. Samodar Prasad Dr. R. N. Sinha Dr. Mukteshwar Prasad.

Though delegation fees at Bombay in 1947 was nil, yet in subsequent four years it has been rupees ten only. At Patna the Reception Committee has fixed at Rupees five only. But in addition there will be a subscription dinner at Rs. 7-8.0 per head. Those willing please inform at the desk at the time of the registration.

You are requested to stay on and join the All-India Medical Conference on 26th December 1952.

P. N. SINHA,
Local Secretary, at Patna.

PROVISIONAL PROGRAMME

Fifth Annual Conference to be held at Patna.

21st Dec. 1952	....	Meeting of the Governing Body at the residence of <i>Dr. Dukhan Ram</i>
		Registration of Delegates at the Medical College.
22nd Dec. 1952		
Morning	....	Members' Photo: Opening address by H. E. The Governor of Bihar.
		Inauguration by Hon'ble Minister for Public Health, Bihar.
		Presidential Address by Dr. S. Roy, M.P. Vote of thanks.
Afternoon	....	Scientific Session: Atrophic Rhinitis Dr. R. V. Rao, A Calcutta Delegate.

DISCUSSION

Dacroeysto-Rhinostomy Dr. Dukhan Ram.
Short Papers by Dr. Tulsidas.
Dr. S. G. Joshi.

PRESIDENTIAL RECEPTION

23rd Dec. 1952		
Morning	....	Cancer Larynx Dr. L. H. Hiranandani.
		Cancer of larynx in Assam Dr. S. N. Sarma.

DISCUSSION

Short Papers by delegates from Calcutta, Delhi and Lucknow.

Afternoon. Rehabilitation of the Accoustically handi-
capped. Dr. C. A. Amesur.

Short papers by Dr. C. Satyanaryana and delegates from Madras etc.

24th Dec. 1952

Morning General Body Meeting:

- (1) Confirmation of the minutes of the Fourth (Calcutta) Session Dec. 1952.
- (2) Hon. Secretary's report for 1952.
- (3) Hon. Treasurer's report with audited accounts for October 1951 Sep. 1952.
- (4) Hon. Chairman of the Editorial Boards report, with audited Journal accounts for 1951-52.
- (5) Amendments to the Articles, rules and regulations of the Association as per rule 27.
- (6) Discussion on the Memorandum submitted to the All-India Medical Institute Advisory Committee of Sir Arcot Mudaliar.
- (7) Discussion re. Expert Committee on Deafness of Dr. S. Roy M.P.
- (8) Resolutions submitted by the Governing Body.
- (9) Resolutions submitted by the members if in due time.
- (10) Election of Office Bearers for 1953.
- (11) Election of the Editorial Board.
- (12) Selection of the place and time of the Sixth Annual Meeting under rule 11 (c).
- (13) Selection of the Local Secretary under rule 11 (d).
- (14) Inviting Scientific papers for 1953, 1954 and 1955.
- (15) Any other Business with the Permission of the Chair.
- (16) The Meeting of the Newly Elected Governing Body under the newly elected President.

Afternoon Visits to Hospitals.

Sight Seeing, excursion etc., etc.

The proceedings of the Conference will be held at the Medical College Hospital, Patna.

Accommodation at Patna is difficult to be obtained at Christmas time. Therefore please communicate with Dr. P. N. Sinha, E. N. T. Surgeon, Dak Bunglow Road, Patna (Bihar); Re. the number of your family attending, type of accommodation needed, vegetarian or non: time of arrival by Air or Train and the day and time of arrival.

As the Government grants concession on railway travel (any class) for attending All-India Medical Conference please communicate with Dr. P. N. Sinha, who will send you the necessary authority slip if necessary.

FIFTH INTERNATIONAL CONGRESS OF OTO—RHINO—LARYNGO—BRONCHO—ESOPHAGOLOGY

to be held at Amsterdam from 8th to 15th June 1953.

Combined Selected Sessions:

(a) Tumours of the Bronchus :—

- Openers
1. Dr. Louis H. Clerf
 2. Dr. A. Soulas et P. Mounierkuhn
 3. Dr. L. Pietrantoni

(b) Audiology :—

- Openers
1. Dr. C. S. Hallpike
 2. Dr. George E. Shambaugh
 3. Dr. S. R. Silverman

(c) Allergy :—

- Openers
1. Dr. G. Dohlman
 2. Dr. French H. Hansel
 3. Dr. R. Melchior.

Twelve speakers will be allowed to speak for five minutes each, in each of the above sessions.

(d) **Original Papers** :—The speaker will be limited to fifteen minutes and the number of Papers will also be limited. Therefore, please send a typed copy of your paper early (Four pages of 500 words each) to the Secretary, so that the Dutch Committee informs you by 1st February 1953, whether time in the programme has been allotted to you.

Subscription :—For delegates has been fixed at 100 Dutch Guilders and that for the Ladies and other relatives accompanying Members to 25 Dutch Guilders. This delegation fees may be transferred beforehand by your Bankers to the Twentsche Bank, Amsterdam, in favour of the account of the International Congress for O.R.L.B.E., 1953.

If you wish to attend and get further information please communicate with Dr. W. H. Struben, J. J. Viottastraat 1, Amsterdam (The Netherlands); by filling in the card he has sent you; as the Hon. Secretary had sent him your address in December 1951.

DONATIONS TO MADRAS GOVERNOR'S FAMINE RELIEF FUND.

1. Dr. C. A. Amesur, Bombay	....	Rs. 100	0	0
2. Dr. S. G. Joshi	....	" 101	0	0
3. Dr. R. A. F. Cooper	....	" 100	0	0
4. Dr. L. H. Hiranandani	....	" 50	0	0

The Association of Otolaryngologists of India.

ANDHRA BRANCH.

The first annual conference of the Andhra Branch of the Association of Otolaryngologists of India was held under the presidentship of Dr. B. Tirumalarao, F.R.C.S., D.L.O., on 24-4-1952 at Visakhapatnam in the premises of the Andhra Medical College. Dr. C. A. Amesur, M.S., D.L.O., president of the Association of Otolaryngologists of India inaugurated the conference. The following office bearers were elected for the year 1952:

President :	Dr. B. Tirumalarao, F.R.C.S., D.L.O.
Vice President :	Ch. S. John, M.B.B.S., E.N.T. (Vienna)
Hon. Secretaries :	G. Lakshmipathi, M.B.B.S., D.L.O. S. Jagannatham, M.B.B.S., D.L.O.
Hon. Treasurer :	V. S. Krishnamurthy, M.B.B.S., D.L.O.
Exec. Committee :	K. Sriramamurthi, B.A., M.B.B.S. S. Mallikharjunarao, M.B.B.S. P. Narasimharao, M.S.

The Secretary's report for the year 1951 was read and approved. The accounts presented by the Treasurer were approved. The draft constitution for the Branch was considered and approved. The following members were listed as Founder Members of the Branch as per article 9 of the constitution.

List of Founder Members

1. Dr. P. Brahmajirao	...	Chittoor
2. Dr. S. Jagannatham	...	Kakinada
3. " Ch. S. John	...	Guntur
4. " K. Krishnamurthy	...	Visakhapatnam
5. " V. S. Krishnamurthy	...	Visakhapatnam
6. " C. Krishniah	...	Tenali
7. " G. Kutumbarao	...	Ellore
8. " G. Lakshmipathi	...	Visakhapatnam
9. " G. Laxmanarao	...	Gudlavalleru
10. " S. Mallikharjunarao	...	Guntur
11. " T. Nandagopal	...	Madras
12. " P. Narasimharao	...	Visakhapatnam
13. " P. Seshagirirao	...	Gudivada
14. " I. Someswararao	...	Parlakimidi
15. " K. Sriramamurthi	...	Vijayawada
16. " B. Tirumalarao	...	Visakhapatnam
17. " T. Venkateswararao	...	Gudivada
18. " Md. Ubeidullah	...	Visakhapatnam

**PRESIDENTIAL ADDRESS OF
THE ANNUAL CONFERENCE OF THE ANDHRA BRANCH .**

BY

Dr. B. THIRUMALA RAO, F.R.C.S., D.L.O.

Let me, as President of the Andhra Branch of the Association of Oto-Laryngologists of India, extend a hearty welcome to you, the members as well as the visitors, who are assembled here this evening. For us, this is an auspicious day. This branch was brought into existence under the advice and with the blessings of Dr. Amesur last year. It has now the honour of its first conference also to be inaugurated by him. Dr. Amesur's services to the cause of Oto-Laryngology in India cannot be over estimated. As the most outstanding and distinguished Oto-laryngologist and one of the most widely respected members of the medical profession in Bombay he was the man that was mainly responsible for the creation of this association 5 years back. Ever since it is under his fostering care and protection that the association has been growing from strength to strength. He has been its chief pillar, prop and support. He is a great Patriarch, I should call him, for not only he created the parent association but has been sedulously engaging himself in bringing into existence a number of daughter associations year after year. He evidently delights himself in having a large progeny playing round about him. He does not seem to believe, though hailing from a most modern cultural centre like Bombay, in the tenets of birth control or family planning.

We are no less pleased to have Dr. Prabhu amidst us this evening. He comes from Madras, a place nearer home. His renown and reputation are too well-known to one and all of you that they need no mention from me. He is now the Professor of Oto-Laryngology in the Madras Medical College and the E. N. T. surgeon in the General Hospital. But it may be news to some of you if I should say that he was a member of this hospital and College Staff some years back. It is just about a decade since he left this place for Madras.

I had the great privilege and good luck of working with him for about 4 years. He was of immense help in the development of this department in those early years, when it was in a precarious state of existence. He was mainly responsible for building up its early traditions on a solid and secure foundation and for imparting to its work and teaching a distinctive stamp, colour and character. The clinical records of the period bear abundant testimony to his clinical acumen, indefatigable industry, extensive knowledge, and supreme devotion to duty.

It is therefore, no exaggeration to say that this first conference of the Andhra Branch is doubly fortunate in having two such eminent leaders of Oto-Laryngology as its chief guests. We are no less honoured and no less grateful to the other distinguished members of the profession who have been kind enough to grace the occasion with their august and inspiring presence. The Andhra Branch is just one year old, and there is nothing very remarkable to say about its activities during the first year of its life.

It has been able to enlist some members from the outlying districts. But its difficulties are great. The members at the headquarters are just a handful. Of these, those in the Government Service are precluded by rules from functioning as office bearers of the association. This is in fact the first meeting and the first Annual meeting since its birth. We have of course, called it a conference though personally I do not like it. The word conference has been developing of late some bad odour about it. There are ever so many conferences, organised by all sorts of people, to ventilate their grievances, real or imaginary against some body or other. We have no such grievances to ventilate, nor rights to fight for. We are an innocent lot of people and our aims and objects are very simple namely, to encourage and to advance the study and practice of the science of Oto-Laryngology. We organize these meetings, for they provide for us an occasion and opportunity to come into close contact and develop a sense of brotherhood and a feeling of fellowship. Secondly, they provide for us a forum for discussion of problems of common scientific interest. Before we proceed further, I should like to stress upon one aspect of the activities of our association. Our association, in order to further its cause and objects, seeks to encourage scientific research and experimental work on Oto-Laryngological problems, and to provide necessary facilities. For a long time to come, this research and experimental work become possible and the necessary facilities can be provided for only in the large teaching centres which undertake under graduate and post-graduate medical education. We are therefore, profoundly interested in the problems of medical education and its growth and development in India. Turning our attention first to post-graduate education we know how it remained un-developed and un-organized for a long time and how we lagged behind the rest of the world, in this as well as in the other aspects of medical planning and education. We know how we are even now forced to send our young men and women abroad for this purpose. We know also that the benefits are not commensurate with the expense and effort involved in this exodus to foreign countries. The Government of India have at last realised that we should be able to solve this vital problem at home. We should be in a position to give such training in our own land, with our own background and with a knowledge of our own particular needs. The Government have up-graded for this purpose certain selected departments immediately in the existing medical colleges research institutions, and hospitals, namely, Anatomy, Physiology, Cancer Pathology and Research, Obstetrics and Gynaecology, Industrial Medicine and Hygiene Psychiatry, and Venereal Diseases.

An All-India Council of Post Graduate Medical Education has been recently created for laying down certain minimum standards of post-graduate education. Quite recently, the foundation stone was laid for the construction of an All-India Medical Institute at Delhi for providing training of a high order, post-graduate as well as under-graduate in the various branches of medical science. When there is so much talk now-a-days of rural bias being imparted to medical training, it would have been ideal, had this institute been located in a place with a rural environment, instead of in a great metropolitan centre like Delhi, where there is nothing rural about it. An expert commission was appointed to advise the Government of India, on the organization and general planning of the Institute. We hope that in this institute as well

as in the up-grading programme of the future. Oto-Laryngology will find its due place of importance. I should like further to observe that the present constitution of All-India Council of Post-graduate Medical Education is too narrow, consisting of a few high luminaries. It should be enlarged, making room for some professors at least from the clinical side of Medicine and Surgery. The various universities seem to have formed their own respective boards to organize post-graduate medical education within their own sphere subject to the guidance and advice of the All-India Council. So far so good. We have at last an All-India Organization which we hope will look after the entire interests and all aspects of post-graduate medical education.

Now coming to under-graduate medical education, we cannot afford to lose sight of the fact as pointed out by the Health Minister of India, that there is an organic unity between under-graduate and post-graduate medical education, and that the standard of training in the former will determine largely the extent to which the candidate for the latter can benefit from the course he pursues.

The Universities and medical colleges in India are under the control and guidance of the Medical Council of India in the matter of under-graduate training. It therefore becomes essential that there should be the closest co-operation between the Medical Council of India, the Council of Post-graduate Medical Education, the Universities and the medical institutions.

At this juncture, when there is set a foot a move for a thorough re-orientation and re-organization of the entire machinery of medical education, I must say that I do not feel very happy over the position of Oto-Laryngology in the present set up of the under-graduate medical education. It is very unsatisfactory, considering the vast scope, extent and importance of this speciality that it had not received as much attention as it deserves from the authorities concerned.

The medical curriculum which originally consisted of Medicine, Surgery and Obstetrics, has undergone several periodical modifications during the last two or three decades to accommodate their numerous off-spring of specialities including oto-laryngology. A certain number of class-room lectures and clinical demonstrations have been made compulsory for each speciality and the student has to produce only certificates of the prescribed percentage of attendance. Very occasionally are any questions asked on the special subjects in the papers on surgery or medicine. The student therefore, rather undertakes the risk of a question turning up by chance, than bother himself with the specialities, either with what is taught in the classroom or in the clinic. He puts them down as so many non-examination subjects, merely to be signed up. This present arrangement in the curriculum creates the unfortunate impression that each is an isolated subject quite un-connected with the rest, and from the body as a whole. The student decides that when he settles down as practitioner he has nothing to do with the specialities but refer the cases to the specialist. This attitude of isolation is fast taking root in the minds of the students as well as the teachers. It has been truly said by Walsh that "much that is implied in the term 'specialism' has come to be an obstacle to the teaching and practice of medicine".

The position of Oto-Laryngology under the existing scheme is bad enough. But the recent recommendations of the Executive Committee of the Indian Medical Council threatens to make it far worse in their anxiety to make room for some of the new and latest of specialities like social medicine, psychiatry, physio-therapy and so on. They propose to dump together most of the specialities old and new, all into one category irrespective of their importance and status and to prescribe the time to be devoted to each subject not to exceed 15 days. I wonder what benefit the student could derive from this short sojourn in the E.N.T. Department.

In this connection, I would like to point out, first of all, that Oto-Laryngology should not be clubbed together with some of the other specialities which are by their very nature auxiliary in practice, as for instance, radiology and anaesthesia. Secondly the status of Oto-Laryngology should in no way be inferior to that of ophthalmology. A casual look into the out-patient registers of any hospital is enough to show the large proportion of patients suffering from ailments falling within the ambit of the pathology of ear, nose and throat. The frequency of these diseases in childhood the great prevalence of deafness, defects in speech, chronic infective conditions and constitutional infirmity, directly or indirectly attributable to the pathology of Ear, Nose and Throat, present some of the great problems of curative and preventive medicine. The scope and extent of usefulness of Oto-Laryngology has vastly increased during recent years. The prevention of deafness and the rehabilitation of the deaf and dumb is as important as the prevention of blindness and the rehabilitation of the blind. It is unfortunate that the importance of Oto-Laryngology has not yet been realised by the medical profession or the public in general.

Whatever the status of the Oto-Laryngologist and Oto-Laryngology, the primary task of treating these ailments in the first instance and the burden of educating the people in their prevention mainly rests with the general practitioner. If the primary object of the medical curriculum is, as I suppose it is, the training of the general practitioner, there cannot be a greater mistake than to reduce the training period of the student in Oto-Laryngology to the ridiculous limits of a fortnight. It makes the future general practitioner a complete ignoramus of Oto-Laryngology, a prospect which I cannot but view with grave fear and apprehension.

I am told that in most of the Universities in Northern India Oto-Laryngology is a subject for examination with a common paper in ophthalmology. It follows that there is a corresponding provision for adequate clinical instruction as well in the subject. I hope and trust that the Association of Oto-Laryngologists will take up this subject with the Medical Council of India and see that the practice in the North Indian universities is recommended to the universities all over India for adoption.

During the past quarter of a century, Medicine has undergone a complete transformation. It has become not only a highly specialised but extraordinarily technical and mechanised. The old etiological interest and humanistic approach have tended to occupy a secondary place. The teaching hospital, especially has become an organized medical factory and exclusively the province of the specialists. Investigation by the objective

method has become the prevailing trend and fashion. It is not a rare phenomenon that by the time the investigations, laboratory and X-Ray etc. are completed, the patient leaves the hospital, either dead or if alive, in a condition of deep disgust and despair. It has been remarked that the extraordinary efficiency of teaching hospital is such, that only two men ever see the patient, the radiologist in the dark and the pathologist after the patient is dead.

Every one who is interested in the organization of medical education, cannot but take notice of the above unfortunate trends in teaching institutions which are not quite conducive to the proper training of the future general practitioner, the back-bone still of the medical profession. Aware, no doubt, of these deplorable tendencies, the medical curriculum has been subjected to ever so many changes during recent times. There is no wonder if the Medical Council of India is now contemplating a further revision of it. But I am afraid, mere playing with the curriculum will not serve the purpose. If the definite objective of under-graduate medical education is primarily the training of the general practitioner, the creation of a suitable environment is the first and primary requisite. A student aspiring to become a general practitioner cannot be expected to thrive in the uncongenial atmosphere of the modern hospital divided into watertight compartments on the basis of the several specialities.

When I speak of specialities, I must point out that I include medicine and surgery as well, under this category. For, the so called general surgeon and general physician, in a modern teaching hospital, are also in the broader sense of the term specialists, confining the scope of their work to the few regions of the body which have not been taken over by other specialists.

Such of the patients suffering from minor ailments, who care to attend the hospital out-patient departments are summarily disposed of. The specialist is not interested in the minor maladies of the human body but in the study of rare and complicated cases of real scientific interest to him. Opportunities thus for the student to acquire an intimate knowledge of the diagnosis and treatment of minor ailments are insufficient. When the final examination comes such knowledge as he has, is rarely put to a searching test. The work of the general practitioner, on the other hand, mostly lies with the diagnosis and treatment of minor ailments.

Another serious defect of a modern teaching hospital, frequently pointed out, is a lack of cohesion between those responsible for welding the individual parts of the finished machine. The student picks up a fragment here and a fragment there and very often finds the task of putting them together to form a composite picture beyond his abilities. The Medical Council, of course, makes certain very pious recommendations such as that emphasis must be laid on teaching general principles and that details must be avoided. The teaching must be more generalized and less comprehensive, so on and so forth. But where are the teachers who can be entrusted with the supreme task of co-ordinating and imparting to the student an integrated knowledge of medicine. Medicine has become too complex and too complicate, too specialized and too mechanized, for any single individual to encompass the whole range of it.

This is a serious problem. It occurs to me that some sort of re-organization of the teaching hospital may perhaps furnish a solution. If the primary object of the medical education is to be fulfilled, it becomes obvious, that the need is great for a closer association between the general practitioner, the teaching hospital and the specialist services. How this is going to be achieved is a matter of great importance and serious consideration. As an experimental measure, I would like to suggest the establishment of a general practitioner clinic for under-graduate and post-graduate teaching, in every teaching hospital. The practitioner in charge, will have all the diagnostic facilities at his disposal. Patients are admitted into his ward and students posted. If the practitioner needs more help, he is free to consult the specialists and cases can be transferred to their care as and when necessary. The student in charge of the patient follows him right up to the end. This is a small point which is even now worthy of attention. As it is, the student often loses sight of the patient as soon as he is transferred to a different department.

The Association of the General Practitioner, with the teaching hospital, in an ampler measure than now improves the standard of his practice and raises his status. The impression should be effaced, that the general practitioner is neither needed nor welcome in a teaching hospital. There should be no barrier for any practitioner with the requisite experience and qualifications to associate himself with the teaching of the students in the hospital.

As the Health Minister of India said "the task of ensuring adequate protection to the health of the people is one which the health services maintained by the state cannot alone perform.

"That large body of medical men and women who follow the profession outside such services should also contribute their share to this task. With a national government at the helm of affairs, every professional man is *Ispo Facto* a servant of the nation and it should be his duty and privilege to keep his knowledge and experience at the highest possible limit of efficiency. In these circumstances, the provision made for enabling the medical man to keep abreast of the developments that continually take place in the service and art of medicine should become available to the whole medical profession. The responsibility for making such a provision on an adequate scale undoubtedly lies on the state". The disregard and indifference, with which the so called independent medical profession was looked upon under a foreign rule is now no longer justified. There should be a closer co-operation between members of all denominations of the profession.

I am sorry for this digression which was quite incidental and which has taken so much of your time. I am not only a member of the Association of Oto-Laryngologists but also a member of the Indian Medical Association. It is my loyalty to the Indian Medical Association that has impelled me to make a reference to this crucial question on this occasion. I have finished, and it is now my pleasant duty to request Dr. Amesur to inaugurate the conference.

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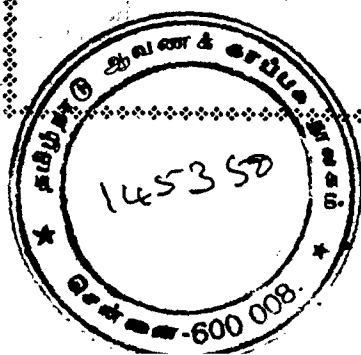
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