

## ADVERTISEMENT TARIFF

|                                              | Full Page | Half Page     |
|----------------------------------------------|-----------|---------------|
|                                              | Rs.       | Rs.           |
| BACK COVER PAGE ...                          | 200/-     | Not available |
| INSIDE COVER PAGE ...                        | 125/-     | 75/-          |
| FULL ORDINARY PAGE ...                       | 100/-     | 65/-          |
| IN VERY SPECIAL CASES<br>FRONT HALF PAGE ... |           | 300/-         |

★

**10% Discount if paid in  
Advance for 4 insertions**

★

*Please address all the correspondence*

**TO THE EDITOR**

Indian Journal of Otolaryngology

"CHITTURI HOUSE"

**114, Poonamallee High Road, Madras-10.**

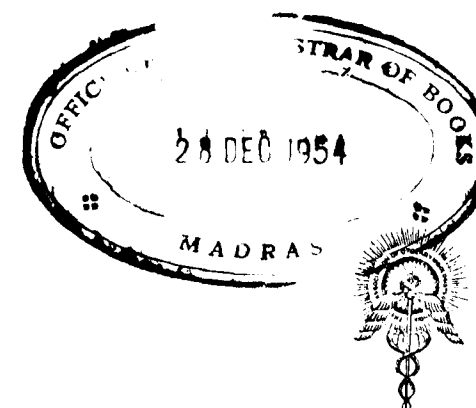
## INDIAN JOURNAL OF OTOLARYNGOLOGY

325

Vo. VI

DECEMBER 1954

No. 4



Editor:

Prof. C. SATYANARAYANA

INDIAN JOURNAL OF OTOLARYNGOLOGY

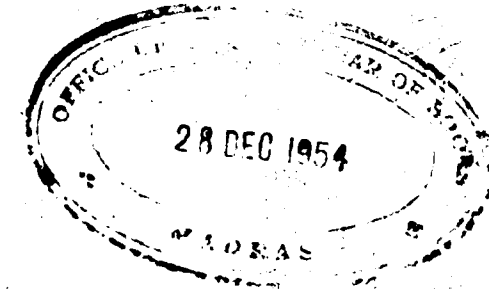
114, Poonamallee High Road, Madras-10

# Indian Journal of OTOLARYNGOLOGY

Editor:

Prof. C. SATYANARAYANA

1332.  
4 54



Vol. VI

DECEMBER 1954

No. 4

## CONTENTS

|                                                                    | Page. |
|--------------------------------------------------------------------|-------|
| Laryngeal Vertigo (a case report) ...                              | 127   |
| B. Tirumala Rao, F.R.C.S., D.L.O.                                  |       |
| Treatment of Facial Nerve Paralysis of Septic Otitic Origin...     | 134   |
| Dr. R. Venkat Rao.                                                 |       |
| A badly done tonsillectomy ...                                     | 139   |
| Dr. M. M. Nath, F.R.C.S., (Eng.), D.L.O., (Lond.)                  |       |
| Long standing Chronic Suppurating Otitis Media and its Surgery ... | 148   |
| Dr. V. S. Subramanian.                                             |       |
| Abstracts                                                          | 151   |
| Association Notes                                                  | 155   |

Handwritten notes: JL, 183, 4m 2, 129, 67, NSP, 6, 455

## INDIAN JOURNAL OF OTOLARYNGOLOGY

EDITORIAL BOARD FOR 1953-1954.

Chairman:

Dr. C. A. AMESUR.

Hon. Treasurer:

Dr. P. V. CHERIAN, Chairman, M.L.C.

Editor:

Prof. C. SATYANARAYANA.

Editorial Secretary:

Dr. P. SRI KRISHNAMURTHY.

Members:

Dr. S. CHATTERJEE.

Dr. B. S. DeVALOIS.

Dr. K. K. GHOSH.

Dr. S. JAGANADHAN.

Dr. S. S. JOSHI.

Dr. R. P. MUNSHI.

Dr. T. NANDAGOPAL.

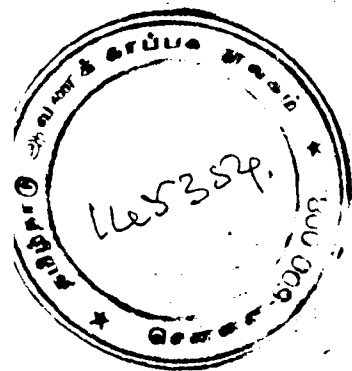
Dr. P. RAMA RAJU.

Dr. A. K. SINHA.

Dr. P. N. SINHA.

Dr. TULSI DAS.

Dr. R. VENKATA RAO.



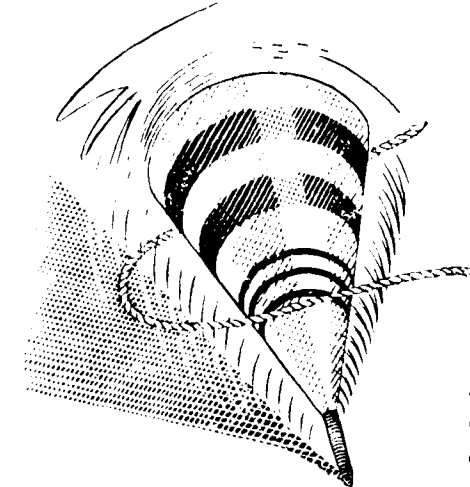
INDIAN JOURNAL OF OTOLARYNGOLOGY

Children the world over need

COLLO-CAL-D

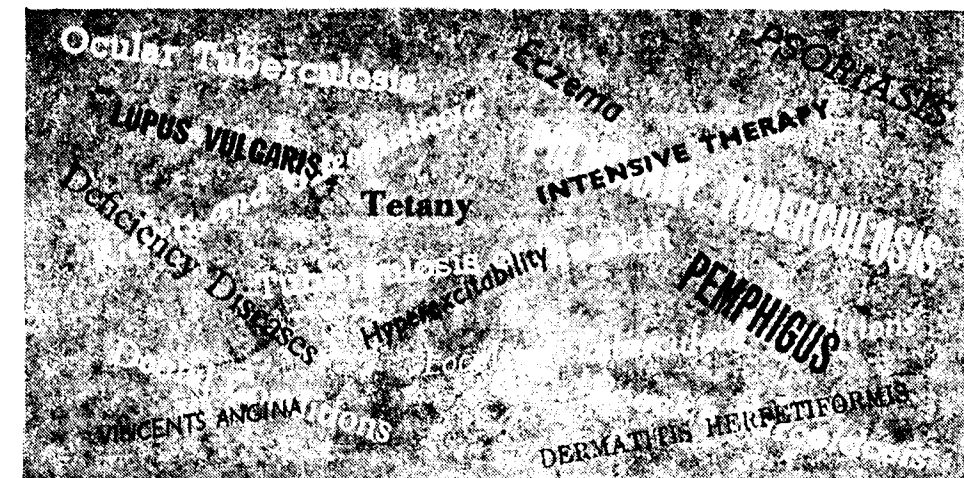
CONTINUED  
MAINTENANCE  
TO GUARD  
AGAINST  
DISEASE

Available in 4 oz. and 20 oz. bottles for  
oral use also 1 ml. ampoules in boxes of  
6 and 15 ml. vials for parenteral use.



THE CROOKES LABORATORIES LIMITED (Incorporated in England)  
COURT HOUSE - CARNAC ROAD - BOMBAY-2

C8-1



COLLO-CAL-D HIGH POTENCY

50,000 I.U. Vitamin D<sub>2</sub> per teaspoonful



THE CROOKES LABORATORIES LIMITED (Incorporated in England)  
COURT HOUSE - CARNAC ROAD - BOMBAY-2

C8-3

# INDIAN JOURNAL OF OTOLARYNGOLOGY

Official organ of

THE ASSOCIATION OF OTOLARYNGOLOGISTS OF INDIA

Vol. VI

DECEMBER

No. 4

## Laryngeal Vertigo

(a case report)

BY

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

(Visakhapatnam)

Charcot first described in 1876 a condition characterised by loss of consciousness after severe coughing and called it by the name laryngeal vertigo. Since then it was given various names by various authors such as laryngeal ictus, laryngeal syncope, laryngeal apoplexy, tussive syncope, catalepsy and so on.

This has been considered upto now rather uncommon if not rare. It would appear that Baker could collect only 100 cases up to the year 1949. The following was the only case of its kind found in the records of the E.N.T. Department of the K. G. Hospital Visakhapatnam, during a period nearly two decades. Scharpey-Schafer (1953) however says that this condition which he designates as 'syncope after coughing' is a common disorder.

### CASE

D.A.N. a male aged about 30 years was seen in the E.N.T., O.P. Department on 30-1-1942 with a complaint of a feeling of fainting on coughing. He had been having cough and sore throat for the last three weeks. About a week back during a fit of severe coughing he became unconscious and fell down. He soon recovered himself, got up and found that there was a little bleeding from the nose. There was in addition a small bruise over the left malar region and a patch of redness of the lower part of the left eyeball. There was no repetition of these fits of unconsciousness but he felt a feeling of fainting whenever he coughed a little bit more vigorously than usual. The redness of the eye increased in extent but there was no further bleeding from the nose. There was no tinnitus, nausea, vomiting or headache. There was no obstruction to nasal breathing. Voice was slightly hoarse.

**BOMBAY SURGICAL COMPANY**

*Suppliers of*  
**DIAGNOSTIC & SURGICAL INSTRUMENTS, HOSPITAL  
 EQUIPMENT & SUPPLIES DEFORMITY APPLIANCES**

★

|                                                   |                                                     |                                                     |
|---------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| <b>STILLE'S</b><br>Stainless Steel<br>Instruments | <b>D &amp; G</b><br>SUTURES<br>★<br><i>Original</i> | <b>KRUPP V2A</b><br>Rustless Steel Hypo-<br>Needles |
|---------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|

★

**BARD-PARKER**  
 KNIFE HANDLES & RIB-BACK BLADES

**New Charni Road      ::      BOMBAY-4**

**TOTALIN-B**

*PARENTERAL*

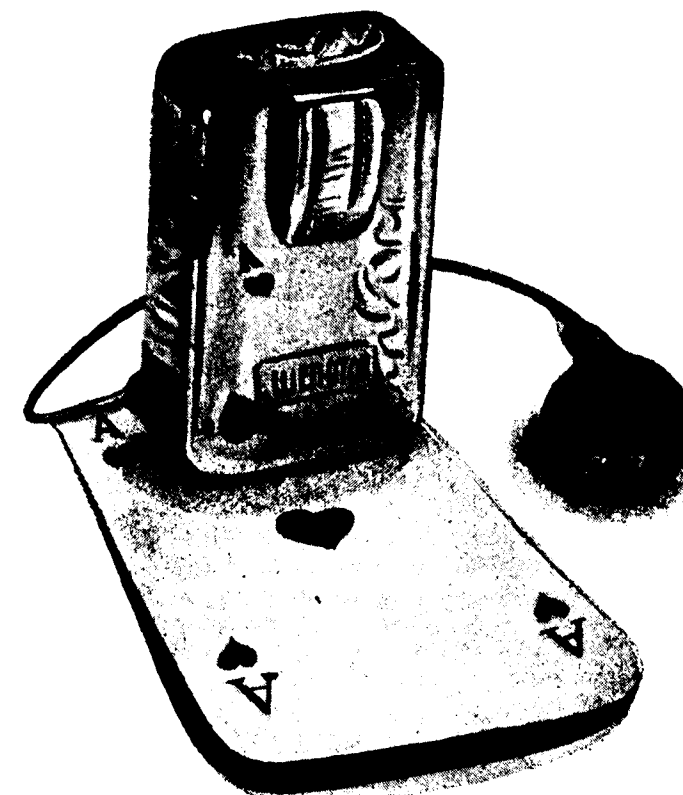
**VITAMIN B COMPLEX**  
*New Formula*

|                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>OLD FORMULA</b></p> <p>Vitamin B1 ... 20 mg.<br/>             Vitamin B2 ... 2 mg.<br/>             Niacinamide ... 75 mg.<br/>             Pyridoxine Hcl. ... 5 mg.<br/>             Calcium Pantothenate ... 2.5 mg.<br/>             Phenol as preservative ... 0.5%</p> | <p><b>Each c.c. contains:-</b></p> <p>Vitamin B1 ... 30 mg.<br/>             Vitamin B2 ... 3 mg.<br/>             Niacinamide ... 150 mg.<br/>             Pyridoxine Hcl. ... 2.5 mg.<br/>             Calcium Pantothenate ... 2.5 mg.<br/>             Choline Chloride ... 15 mg.<br/>             Inositol ... 10 mg.<br/>             Benzyl Alcohol ... 1%<br/>             Phenol (as preservative) 0.5%</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**TOTALIN-B REPRESENTS HIGHEST  
 CONCENTRATION B COMPLEX**

SUPPLIED IN RUBBER CAPPED VIAL OF 10 c.c.

*Gipla*  
**B O M B A Y - 4**



### Modern HEARING AID Model "WENSISTOR WT 540"

The WENDTON-HEARING AID, WENSISTOR Wt 540, is the latest German Hearing Aid and is supposed to be the first all-transistor-unit with four transistors being manufactured in series. This aid is provided for medium and extreme cases of deafness. The output speech power with 2mW is almost 100% above that of three-tubes-units of normal execution. In addition, the aid has an excellent input sensitivity.

Average cost of operation is 1 anna for every 40 working hours.

*Ask for further particulars:*

**INTERNATIONAL TALKIE EQUIPMENT CO. LTD.,**  
 17, NEW QUEEN'S ROAD, BOMBAY-4

Telephone: 20892.

*Branches:*

18, Mount Road,  
 MADRAS.2.  
 Telephone: 86282.

742-A, Chandni Chowk,  
 DELHI.  
 Telephone: 24865.

11, Govt. Place East,  
 CALCUTTA  
 Telephone: City 1121.

**Anterior Rhinoscopy.**—Nasal mucosa hyperaemic; no ulceration or new-growth; septum deflected to the left.

**Posterior Rhinoscopy**—negative.

**Pharynx.**—Tonsils succulent.

**Larynx**—approximation of the vocal cords impaired and a little thickening of the interarytenoid space.

There was a slight tenderness over the left infraorbital region and a spike-like prominence on the lower margin of the orbit just above the infraorbital foramen.

**On Transillumination.**—The infraorbital crescent was absent; and the antrum was opaque on the left side.

A radiograph showed a break in the continuity of the infraorbital margin corresponding to the prominence felt on palpation. The radiograph was unfortunately preserved but his clinical photo which is available shows a slight swelling of the lower eyelid extending a little down below.

It was diagnosed as a case of laryngeal vertigo. It conformed closely to a text-book description of the disease. The severe fit of coughing, the short phase of unconsciousness, the violent fall resulting in a bruise of the malar region and the fracture of the infraorbital margin present a characteristic picture. There had been an acute laryngitis and a troublesome unproductive cough. The recovery from unconsciousness was instantaneous and complete. There was no involuntary micturition. There was no biting of the tongue or convulsive movements of the face or limbs. There was a subconjunctival haemorrhage and epistaxis, features not uncommon in prolonged paroxysms of coughing.

The cause of this disorder is unknown and the pathology ill-defined as is seen from the various names given to it in literature. It was mostly met with in males between the ages of 35 and 70 years. Smoking, drinking, bad teeth, and infections such as pertuissis associated with unusual vigour of coughing are accepted predisposing causes. Scharpey-Schafer (1953) states irritation consequent on a troublesome unproductive cough produces an upper respiratory tickle which like some forms of skin itching need the utmost violence to assuage. This form of coughing may become a habit. Middle aged males are the chief victims. The curious rarity in the female sex may be due to some extent to the social taboo which imposes a certain amount of restraint on the violence of coughing. It is not unknown however in the female.



D. A. N. Male, age 30 years  
Fracture, lower orbital margin (left).

The patient here under report did not smoke or chew tobacco nor addicted to drinking. But he was suffering as stated above from a laryngeal catarrh.

Charcot called it laryngeal vertigo and thought it was a condition analogous to Meniere's disease. Some regarded it as a form of petit mal and some others as a spasm of the glottis, with the arrest of the action of the muscles of respiration. Jackson and Jackson (1945) described it under the designation of ictus laryngis and said it was associated with glottic spasm or it may simulate a glottic spasm. They think that laryngeal catalepsy would seem to be a more appropriate term to give for some of these cases. The momentary unconsciousness, the biting of the tongue and the slight convulsive movements suggest a relation to epilepsy. When these are absent the attack is rather suggestive of catalepsy. Catalepsy is described as a sudden onset of weakness and tonelessness in the voluntary muscles. These attacks are precipitated by a sudden emotion such as anger and most often by events provoking laughter. In a severe attack the head falls forward, the jaw drops, the eyelids close and the face becomes expressionless. Arms fall to the sides and the legs crumble so that the patient sinks to the ground an inert mass speechless and incapable of the slightest movement but without any impairment of consciousness. (Price 1950). E. Noble Chamberlain (1951) also says that the patient is fully conscious during the attack. In the case under report the attack was not brought about by any emotional outburst but by a severe fit of coughing. He was also unconscious. These are points against it being a case of catalepsy. Whereas the absence of the biting of tongue and of convulsive movements are not quite in favour of its having any relation to epilepsy, though the possibility of petit mal cannot be denied. But then there was no previous history of similar episodes.

Lederer (5th Edition) says that it is a psychoneurosis involving the respiratory centres and the nerves of the larynx. There is nothing suggestive in the history of this case of such a diagnosis. Lederer also mentions of the belief held that it is due to a disturbance of pulmonary circulation or to cerebral congestion.

Thomson and Negus (1948) say that it is neither a distinctly sensory nor a distinctly motor disturbance but is transitional between the two. They referred also to the view of McBride that the symptom-complex is due to forced expiration with a closed glottis and the consequent pressure on the large blood-vessels in

the thoracic cavity and consequent syncope. On the contrary they suggest the cause may resemble the conditions of Muller's experiment in which a sudden attempt at deep inspiration is made with a closed glottis. As no air can enter the lungs, intrathoracic pressure is markedly reduced and the pulmonary capillaries dilate. Blood flows into them from the right side of the heart and accumulates in the pulmonary area, to such an extent that an insufficient supply reaches the left auricle and ventricle, in consequence aortic pressure falls causing cerebral anaemia, which may result in unconsciousness and, it is said, in death.

McCann et al (1949) after elaborate investigations conducted in two cases reached the conclusion that the syncopal response was dependant on circulatory disturbances due to coughing and is not due to epilepsy. They found that both Valsalva manouvre and paroxysmal coughing impede venous return and pulmonary circulation and to decrease the cardiac output. Cerebral congestion alone was not sufficient to cause syncope, but cerebral congestion occurred in addition to anoxaemia and cerebral anoxia. In one patient they were able to produce syncope and even convulsions in the recumbant position by the Valsalva manouvre. The possibility that spasm of the pulmonary artery occurred, in addition to a pronounced increase in intrathoracic pressure was investigated with inconclusive results. They believe that the term 'tussive syncope' is more appropriate than 'laryngeal epilepsy'.

Howard et al (1950) published the results of their investigations in two closely related conditions indulged in as a sort of sport, one known as mess trick and the other as 'fainting lark'. In the mess trick the victim is persuaded first to take twenty deep breaths and then his chest is suddenly compressed by some one standing behind. Then the victim falls to the ground losing consciousness. The fainting lark consists in the subject squatting on his haunches and taking 20 deep breaths. He then rises rapidly to the erect position and immediately performs the Valsalva manouvre. The immediate result is alleged to be a fall to the ground and losing consciousness for about half a minute. As regards both of these procedures their explanation is as follows. The hyperventilation of the lungs consequent upon deep breathing leads to a dilation of muscle blood-vessels and to a constriction of brain blood-vessels. Compression of the chest in the former procedure causes the victim to perform involuntarily the Valsalva manouvre which in the presence of peripheral dilatation is sufficient to reduce

effective blood pressure and consequently cerebral blood flow to levels which cause unconsciousness. In the fainting lark the mechanism is the same as in the mess trick with the additional factor of the fall in blood pressure produced by rising from the squatting posture.

They have further pointed out that any one practising these tricks on himself or his friends should be prepared for the consequences, the main risk being that of injury during falling. In case No. 1 of McCann et al it was stated that on some of the occasions the patient had fallen and on one occasion had actually fractured the ribs. In the case now under report also the patient had a fall sufficiently severe as to have caused a fracture of the left infraorbital margin.

More recently Scharpey-Schafer (1953) published the results of his investigations in 27 middle aged or elderly males who had given a history of syncopal attacks on coughing. In many of them he found it possible to provoke an attack by asking the patient to give a few strong coughs. In a few of them inhalation of cigarette smoke or irritation of the nose was used for the purpose.

Pressures intrathoracic, intracardiac, intraarterial, and intravenous were recorded. Forearm flow was recorded by a plethysmograph. The data obtained in these 27 subjects were compared with similar measurements in forty others of all ages and of both sexes. There was no qualitative difference in the effects of coughing between the two groups. In the former group coughing when violent either continuous or intermittant resulted in syncope though the circulatory effects were different. Continuous coughing without drawing breath produced circulatory changes which were examples of the effects of Valsalva manouvre. The violence of the coughing was the determining factor; intrathoracic pressures of 200 to 300 m.m. Hg. being reached in a prolonged paroxysm lasting many seconds. Consciousness was usually lost during the period of acute hypotension following the cessation of coughing. As in other forms of syncope such as would occur in the mess trick and the fainting lark the critical level for the loss of consciousness was 50 m.m. Hg. Twitching movements were common during syncope. Occasionally syncope occurred while intrathoracic pressure was still high, but the arterio-venous pressure across the brain was greatly reduced.

Intermittant coughing also produced syncope. This was the normal type of coughing, inspiration following each cough in

fairly regular sequence. This caused rapid large fluctuations in intrathoracic pressure, which was termed cough transients. It was followed in all subjects by a fall of arterial pressure and consciousness was lost at the lowest blood pressure level.

Patients with large quantities of sputum from chronic pulmonary disease rarely showed these symptoms. Continuous records during coughing in such patients showed that intrathoracic pressure rose no higher than about 100 m.m. Hg. and though the usual circulatory changes were present they were not sufficiently pronounced to interfere with the blood supply to the brain.

Scharpey-Schafer as a result of his experimental study comes to the conclusion that syncope from coughing is common and in its development only normal physiological mechanism is involved and that it resulted from an acute diminution of supply pressure to the brain. If the subject is a known epileptic the full seizure is more easily induced by methods of lowering blood pressure.

He further observes that the appearance of the subject during continuous coughing is alarming and may suggest to the lay mind and often the medical mind the likelihood of a burst blood vessel, while the subsequent syncope may indicate that the calamity has occurred. The vessels of the internal organs such as the brain, however, are protected from high pressure differences across the walls since the surrounding structures are exposed to the same pressure and as explained above the pressure across the walls is less and not more than normal.

It is only in places where veins are in near contact with outside atmosphere that pressure differences of 300 m.m. Hg. may be built up. Since surface veins are protected by valves, high pressures are reached only after a period of some seconds. In prolonged paroxysms of coughing nose veins commonly burst and occasionally veins in the conjunctiva and anus do likewise. In the case under report there was bleeding from the nose and a subconjunctival haemorrhage.

In answer to a question in the British Medical Journal 1954 the following definite statement was made as to the nature of the condition. "It was formerly thought that laryngeal vertigo was a disease in its own right like Meniere's disease, but this is not so. It occurs usually in middle aged men who are subject to a spasmodic type of cough. The episode may be provoked by eating, drinking or by inhaling an irritant such as tobacco.

Usually there is a fit of coughing, with a spasm of the glottis, so that the combination of violent respiratory movements and complete closure of the glottis causes a violent variation in the cerebral circulation and momentary syncope". This statement summarises very well what we know of the nature of this disorder at the present moment and is quite in accord with the results of the investigations of Scharpey-Schafer above referred to. As regards treatment, it is advised that the patient must be made to realise two things, first that the violence of the act of coughing was the cause of syncope and secondly that the extreme violence in coughing was quite unnecessary. Any casual condition in the respiratory tract should be treated and care should be exercised in the choice of food and drink, if these are precipitating factors. Smoking should be forbidden.

During the attack Thomson and Negus recommended a whiff of chloroform and a gag to be inserted between the teeth, if there are any convulsive movements. Inhalation of amyl nitrite or octyl nitrite might be useful.

#### SUMMARY

A case of laryngeal vertigo, an uncommon condition is reported and literature on the subject is briefly reviewed.

I would like to express my grateful thanks to Dr. C. Sitarاماiah M.B.B.S., M.Sc., Ph.D. (Lond.), Professor of Physiology, Andhra Medical College for some of the references and to Dr. S. N. Gantayet, M.B.B.S., D.O., the Superintendent, K. G. Hospital, Visakhapatnam for permitting the use of the hospital records.

#### REFERENCES

1. British Medical Journal 1954, 1; Any questions? 224.
2. Howard, P., Leathart, C.L., Dornhorst, A.C. and Scharpey-Schafer, E.P. (1951) British Medical Journal, 2, 382.
3. Jackson, C; Jackson, C.W. (1947) Diseases of Nose, Throat and Ear (Saunders), 516.
4. Lederer, L.F. (5th Edition) Diseases of Ear Nose and Throat, (F. A. Davis & Co.) 761.
5. McCann, W.S., Bruce, R.A., Loveloy, F.W., Jun., Yu, P.N.G., Pearson, R., Emerson, E.B., Engel, G. and Kelly, J. J. (1949) Arch. Inter. Med. 84, 845.
6. Noble-Chamberlain, E. (1951) Text-book of Medicine (Wright) 621.
7. Price (1950), Textbook of the practice of Medicine, (Oxford Medical Press), 1760.
8. Scharpey-Schafer, E.P. (1953), British Medical Journal—2, 860.
9. Thomson, St. Clair and Negus, V.E. (1948). Diseases of Nose and Throat (Cassell) 5th Edition, 679.

## \*Treatment of Facial Nerve Paralysis of Septic Otitic Origin

BY

DR. R. VENKAT RAO, (Hyderabad-Deccan)

A fair number of cases of this condition is met with by an Otolologist. Though the number is small the problem to be dealt with is very fascinating. Much of the present knowledge in the treatment we owe to the pioneer work of Bunnell and Martin. From 1930 to 1934 Ballance and Duel individually and later, together gave an impetus by bridging the gap in the nerve with an autogenous nerve graft.

It is redundant to describe the detailed anatomy of the facial nerve in its relation to the middle ear cleft till it emerges through the stylomastoid foramen.

52 cases handled by me have been classified as follows, in view of the treatment adopted :—

**Group I.**—(22 cases) Facial paralysis of short duration i.e., not more than one week. (a) The patient or the patient's near relative will give an accurate history. (b) Reaction of degeneration is not present for either galvanic or faradic stimulation. (Some times it is necessary to repeat this under anaesthesia).

In this group it is better to clear the sepsis in the middle ear cleft by appropriate surgery; ranging from paracentesis to radical mastoidectomy according to the pathological condition present.

| Children. | Adults. | Operation.               | Total No. | Cured or relieved. | No effect | Remarks.                                                |
|-----------|---------|--------------------------|-----------|--------------------|-----------|---------------------------------------------------------|
| 3         | 1       | Paracentesis (Secondary) | 4         | 2                  | 2         | Simple mastoidectomy done later in 2.                   |
| 11        | 1       | Simple mastoidectomy     | 12        | 6                  | 6         | Decompression of F. N. 3 done later. No follow up in 3. |
| 3         | 3       | Radical mastoidectomy    | 6         | 2                  | 4         | Decompression of F. N. after 2 months all adults.       |

\*(Paper read before the 6th Annual Conference of Otolaryngologists of India, Hyderabad-Deccan 1953).

It is interesting to note in this group that there were 17 children within 5 years of age. The youngest being 1 month old. This confirms the age old teaching that the bony Fallopian canal in earlier age may be imperfectly formed, very thin, dihescent, or the nerve may be covered only by the mucosa and therefore more vulnerable to the acutely spreading infection in the middle ear.

The cases that have satisfactorily recovered required 4 to 6 months, but a few cases have shown dramatic improvement at the end of the 1st week.

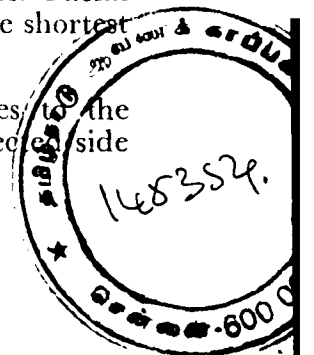
**Group II.**—(24 cases) This group needs to be sub-divided into :—(1) Facial Paralysis seen within a maximum limit of 48 hours after mastoid surgery—in one case facial paralysis was seen immediately after the anaesthesia wore out and one within 24 hours. There were three cases in this group.

All the three cases in this group were the result of direct trauma to the nerve structures. There is no reaction of degeneration yet. Removal of pack (if it is introduced) or washing out the cavity was tried with no effect. In my small experience I have found the nerve damaged in the vertical part in 2 cases and in the horizontal part above the genu in one case. I guess that the damage in the vertical part was due to the curetting of bone beyond the retrofacial cells, and the damage to the horizontal part was due to the use of sharp curette for removing the granulations on the labyrinthine wall.

**General outline of operation.**—(1) The standard Ballance's Duel technique is used. Facial nerve is decompressed from the stylo-mastoid foramen upwards till the two ends of the nerve are carefully located. If the gap is not more than half an inch, the nerve is lifted out of the canal and the two ends apposed with 0000 silk suture. If the gap is more, the nerve is not lifted out of the canal and a degenerating graft from the external cutaneous nerve of the thigh of appropriate length is accurately interposed between the freshened ends of the nerves and maintained in position.

**Group II.**—(2) In this sub-group I have 21 cases. Facial paralysis has been present for more than 2 months; the shortest duration was 2 months and the longest 1½ years.

**Findings.**—Varying from loss of tone of the muscles, to the stretching and partial atrophy of the muscles of the affected side were seen.



**Electrical reactions.**—All cases had negative response to faradic current. Some cases showed varying degrees of response to galvanic current.

**Operative procedure.**—All cases in this group had a two stage procedure adopted.

**Stage I.**—Radical mastoidectomy and preparation of nerve graft from the thigh.

**Stage II.**—Standard Ballance Duel technique as described in the first sub-division of this group.

The two stage operation has been adopted persistently to minimise the sepsis that may interfere with regeneration of the nerve.

In two cases when the packing from the wound was removed the graft was found on the gauze that came out; in one case fresh grafting was done, the other patient refused to undergo any further operation and left the hospital. Since these accidents I am using fibrine foam and lately spongiostan to keep the graft in position. Of the 21 cases only 11 required grafting. There was one case where the gap was more than three cms. and could not be bridged.

**Results.**—Generally the results have been very encouraging to me. These may be classified according to the (1) duration of facial paralysis (2) simple decompression. (3) and to end suture or rerouting, (4) grafting.

The longer the facial paralysis is present the poorer the results.

| Technique.            | Total No. |          | Results. |               |                          |
|-----------------------|-----------|----------|----------|---------------|--------------------------|
|                       | Group II. | Group I. | Fair.    | Satisfactory. | Failure and no followup. |
| Decompression ...     | 6         | 7        | 7        | 3             | 3                        |
| End to end suture ... | 4         | —        | 2        | 1             | 1                        |
| Grafting ...          | 11        | —        | 5        | 2             | 4                        |

One important adjuvant to the treatment described above is maintenance of the tone of the paralysed muscles. The patient must have massage and galvanic stimulation. According to Josephine Collier even faradic stimulation on and off is very helpful.

**Group III.**—There are 6 cases in this group. F.P. comes on very gradually from 2 to 5 days usually after radical mastoidectomy. R.D. is negative. This condition requires no interference. It clears up gradually and some of my cases have taken 6 months to clear up. All cases in this group have recovered without any interference except massage to the muscles.

**Some observations.**—Prognosis of cases in Group I, is very good; but less than in group III.

In Group II, the prognosis depends upon the duration of F.P. i.e., the longer the facial paralysis the less the chance for recovery of tone and greater the chance for stretching of atrophic muscles. If the nerve is in tact and F.P. is due to pressure from the lesion in the bony wall recovery is very fair. If there is a loss of substance of the nerve, end to end suturing gives 50% good results. If the repair entails grafting the chances of recovery are fair.

The Frontalis never recovers after grafting or end to end suture.

Emotional control does not return completely because (1) In end to end suturing, one or both ends of the cut nerve may get rotated when the nerve is lifted out of the bony canal and therefore some of the axons are not able to re-enter their former sheaths.

In grafting two joints are created; and hence there is greater chances of interference in the correct proliferation of axons to their original destination. Sepsis also plays an important part in causing fibrosis around the joints. The two stage operation has been adopted persistently to overcome sepsis, though the field is never absolutely aseptic. A degenerating nerve graft is easier to handle than a fresh graft.

More recent electrodiagnostic methods such as estimation of the proportion of innervated and non innervated muscle fibres and electro-myography as described by Josephine Collier may help us in adopting surgical methods early to prevent permanent degeneration in the neuromuscular junctions. I have no experience of this.

I must acknowledge my thanks to the Superintendent, Head of the Radiology and Electro-therapy department, Anaesthetist and all my house surgeons in the Osmania General Hospital and Sarojini Devi Hospital, Hyderabad-Dn., for their co-operation in this work from 1936 to date.

## Dr. VENKAT RAO BELLS PALSY FACIAL PALSY OTO-GENIC

Dr. S. G. Joshi—VII Palsy of oto-genic origin.

(1) The pathology of facial paralysis occurring during the course of acute otitis media is much different from the one occurring—in chronic mastoiditis. One of my patients of 35 years age with facial palsy—on whom I advised a mastoid operation recovered only on sulphadiazine. Myringotomy also has worked successfully in more than  $\frac{1}{2}$  doz. cases.

(2) One case of facial palsy during an operation of acute mastoiditis—the tip of the mastoid had separated as a sequestrum and which lifting the tip away this wound—the facial nerve was cut through—which was found to threading the sequestrum like a thread-in a head. There was loss of nervous tissue and two ends could be opposed and paralysis almost cleared at the end of mouths after operation.

## BELL'S PALSY

(1) It is difficult to ascertain which of the cases of Bells palsy will not recover by any physical or electrical neurological tests. Faradic test could be negative—even if the nerve must function. Because of skin resistance and positive reactions could be obtained—on stimulation of the nerve under anaesthesia or on stimulation of the directly exposed nerve.

(2) The time to do a decompression operation is within 3-4 hour of Bell's palsy—once the vascular changes are established which happens within 2-3 hours. Operation after 48 hours cannot save the facial nerve from vascular damage. Recovery from facial paralysis has taken place even 6 months later.

## BIBLIOGRAPHY

- Ballance, C. A. and Ducl, A. B: The operative treatment of Facial Palsy, Arch. Otolaryng. 15: 1—70, 1932.  
 Brunner, H: Clinical significance of the treatment of Otogenous Facial Paralysis Laryngoscope, 49: 276—90, April-1930.  
 Bunnell, S. Surg. Gyn. Obst. 45: 7, 1927.  
 Furstenberg Arch. Otolaryng. Vol. 41, No. 1: 42, 1945.  
 Collier, Josephine: Lancet 2: 91, 1942. Proc. Roy. Soc. Med. 34: 575-1941. Facial Nerve Surgery Ann. Otolaryng, Vol. 58, No. 3, 686-700, 1948.  
 Viole, Pierre: Experiences in Surgical treatment of Facial Nerve, Arch. Otolaryng. Vol. 41, No. 5 391, 1945.  
 Martin, R. C. Arch. Otolaryng. 13: 259, 264-1931.  
 Kettle, K: Facial Palsy of Otitic Origin. Arch. Otolaryng, 36: 303-348, May-1943.

## A badly done tonsillectomy

BY

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

I dont know if I should apologise to you—a gathering of specialists for bringing in this subject of tonsillectomy which we handle at the house surgeon stage. I have dared to do this after having had an opportunity of following up tonsillectomy cases coming to me from almost all parts of India. Jamshedpur, where I work is a cosmopolitan town where people from North, South, East and West get together. The standard of living is comparatively high of those that attend Tata Main Hospital as patients, compared to what one has in other places in India. The people appear to be lot more tonsil conscious than one saw anywhere else. That is probably the reason, a large percentage of such people had already had their tonsils sacrificed and having not had the relief of their suffering gave me an opportunity to see what was done and for what. I have seen the jobs done by people senior than me, claiming the lengths of experience which would draw anyone to look up to them with respect. I must say my faith has been shaken a bit. This brings me to the humility with which we must approach the subject for the sake of our reputation as E. N. T. Surgeons particularly when we know that tonsillectomy is such an easy operation and any surgeon with a little skill would attempt to do it. We should not let it be said that “this tonsillectomy was done by an E. N. T. Surgeon and look what the throat looks like and the frequent attacks of the sore throat still come”.

Please forgive me if I repeat the obvious truth—that the tonsils must not be recklessly dealt with unless there is a definite reason to suspect that the cause of the complaint, in its entirety or even partially lay in the tonsils. I know it would appear unnecessary for me to repeat this obvious truth but the purpose of my paper is to put up a voice of caution. I am not recommending conservatism in cases where the tonsils are glaringly the cause of trouble but only against recklessness when tonsillectomy is done to show up the performance of a major operation secretly imagining that no harm is really being done even if it is a mere trial and error effort. It may be said that we are not

very certain about the physiology of tonsils in favour of the attitude just mentioned but as surgeons I am sure we would be adopting the correct attitude if we stick to the principle of respect for the living tissues.

In my attempt to analyse where we go wrong when doing a tonsil operation, I would divide the procedure in three stages:—

(1) Making up one's mind stage. (2) The actual performance of operation (3) The stage of nature's reaction to man's interference and its graciousness to heal.

The first stage is that of looking for indications of operation. These have all been put up in full excellently in text books of diseases of Ear, Nose & Throat. So I would skip enumerating these. While looking for these indications, one has to be careful enough to look and find any other cause which may be responsible for the patients' complaint. In this connection the first is one's own responsibility of examining the patients a little more thoroughly than what is done in a busy out-patient' department. Perhaps you are lucky to have a good house surgeon, who would do this for you before the patient is actually put up for operation, but my observation is that the house surgeons, apart from not being very experienced are not too critical of their seniors' judgment, a casual surgeon never inspires his apprentice to be very careful in his investigation of the patient's condition. It is not very often that one sees unhealthy looking tonsils accompanied by sinus infection—or badly ventilated nasal chambers, due to deflected septum or hypertrophy of middle turbinate or enlarged bulla ethmoidale. Once one is able to deal with the nasal condition it is surprising indeed to find the unhealthy tonsils beginning to look healthy again. With the slightest suspicion therefore of the nose harbouring infection, it should be a rule to exclude sinus infection. It is indeed much better to spot it before than after the tonsil operation for obvious reasons. A routine X-Ray of the paranasal sinuses as a preliminary for all tonsil operations is strongly recommended. Transillumination cannot take its place.

2ndly Allergy is another bug-bear—Please forgive me again if I say that I have known lots of tonsils taken out when the underlying cause of the patients complaint was allergy. It is true that a very small percentage of cases of allergic manifestations derive benefit after tonsillectomy but the patient must be warned about what is being done and for what. He would appreciate

this more, put in his will power to get better and not feel disappointed if he does not get the benefit expected after the operation. One would convert his "faith in the unknown" into a co-operative effort. That is what we as doctors endeavour to obtain from all our patients.

A physician is a useful member in our medical set up. In all cases of allergy his help should be available to look for other manifestations of allergy in other parts of the body. In other words an E. N. T. patient must always be looked upon as a whole. Physicians are known to prescribe treatment and E.N.T. conditions are relieved. Problems faced as a co-operative effort in healthy and pleasant atmosphere than when an individual attempts to take the whole credit of curing a patient to one self.

3rdly Some of you might disagree with me when I draw your attention to the importance of knowing the blood picture of the patient prior to tonsillectomy. I know some regard it superfluous and an unnecessary fuss, but I am sure an occasional spotting of a patient who does not need tonsillectomy or be warned of a possible risk involved when doing the operation more than compensates one for the trouble taken. By the blood picture I merely mean total and differential W.B.C. count and bleeding and coagulation time. I have the possibility of an eosinophilia and a prolonged bleeding & coagulation time in mind when I lay stress on what I have just said. I send my eosinophils to the physician and have Vitamin K and Coagulen Ciba and the like, ready for lengthy coagulation times.

No. 4 on my list is the patient's particular habits which may be responsible for his complaint and tonsils get blamed for no reason. In this connection I have come to believe that smokers are of two types—those who can take it and those who can't—I mean the smoking. The latter are a sensitive sort who took to smoking as a curiosity or as fashion like all beginners do but they can't go through with it because they don't relish the inevitable state of constant irritation in the throat with excessive mucoid secretion. If you could persuade them to give up smoking or perhaps order non inhalation of the smoke the tonsils might yet be saved.

6. Lastly I would mention about the large majority of children, mouth breathers, who only need their adenoids to be removed, but innocent tonsils are made to accompany the latter on their way out. Tonsillectomy here is an unnecessary surgery and is deprecated with all the emphasis.

The 2nd Stage—the actual operation :—Let me at the outset emphasize here that to perform an operation these days is essentially a co-operative effort where the surgeon, the anaesthetist and other members of the team have to play their part efficiently to get a good job done. The surgeon is no longer the master of the show in the operation theatre. I have heard it claimed that they do a tonsil operation in seven minutes or less. Apart from the fact that it shows lack of humility which is the virtue of the age and experienced, it can only impress those who have done little work themselves. It again does not need me telling you that all tonsils are not the same—all patients are not the same and since it is a team working one could hardly be in a position to speak for all, always. I am sure there must have been times when one thought that the operation would take seven minutes, but it didn't. That in itself should make one feel humble and put in a restraint to one's tongue. I would invite you to imagine the state of feelings of the patient's relations and friends when you don't keep that promise of minutes—Get them to have that feeling of security through your kind and sympathetic words than in a cheaper way by promising them a quick job. Thoughtful people are not impressed that way.

A word about anaesthesia—We all like endotracheal intubation for anaesthesia for adult patients. I have known an anaesthetist insisting upon the same for children also. There was an occasional bleeding from the adenoids as the tube made its way through nasopharynx. Demonstration of blood in the throat before the start of operation, and as good an anaesthesia by attachment of the tube to the gag persuaded him to give up the practice. I know of a surgeon who once had a mishap through post nasal bleeding after a tonsillectomy in an adult. From that time on he insisted upon the endotracheal tube through the mouth—with the advancement of anaesthesia—and the dependability of qualified anaesthetists the need for a local anaesthesia for tonsillectomy is going out. Unless the patient insists upon a local anaesthetic or there is a grave risk attached to a general anaesthesia as advised by the experienced anaesthetist there should be no third occasion when a surgeon should decide in favour of a local anaesthetic.

A senior E. N. T. Surgeon who had his tonsillectomy done by another senior E. N. T. Surgeon under local anaesthesia described to me how uncomfortable and unpleasant his experience was, although it was devoid of pain most of the time—

He had himself voluntarily asked for this trial just to know what the patient felt during his ordeal. You might well gauge the trend of opinion abroad when I say that during my three years attachment to the Institute of Laryngology and Otology in London not very long ago I did not have the occasion of witnessing a single case of tonsillectomy done under local anaesthesia.

Now I come to the actual operation—a badly done operation results in :—(1) Scarring of the tonsillar region and the soft palate. (2) Leaving some tonsillar tissue which might grow later on, or is nuisance in itself.

These are the two after effects which I have noticed over and over again in the follow up cases that came to me, as I said, done by a number of other E. N. T. Surgeons, of our country besides myself.

1. Scarring of the palate and the tonsillar region is obviously due to laceration and the damage to the tissues done in excess of what is really needed. A casualness or perhaps anxiety to finish the operation quickly more than a bad technique is responsible. The basic principles of clean cuts and separation in tissue layers get neglected when you are in a hurry or feel over confident—The two serious results of scarring are :—(a) perpetual nasopharyngitis due to incomplete shutting of the nasopharyngeal space by scarred palate at each deglutition. (b) alteration in the timbre of voice due to altered resonant spaces brought about by nonresilient soft palate.

I would divide the operation in three acts—incision—separation and controlling the bleeding.

(a) Incision—I have seen quick parabolic incision starting from the anterior pillar point sweeping through the soft palate into the posterior pillar area being given by means of the sharp point of a dissector—or that no incision is given at all—a mere tearing of the mucous membrane is effected by means of the long toothed dissecting forceps. It should not be difficult to imagine the laceration and wastage through these procedures of the mucosa, which should have been saved—The line of incision must never be left to chance—It must be planned so that very little mucosa belonging to the pillar and palate should go with

the tonsils—All this mucosa would fall into the tonsillar bed after the tonsils are removed—hasten healing and do away with scarring that follows.

(b) The separation of tonsils from their beds—I have seen no special heed being paid to this act with the result that apart from unnecessary oozing of blood the superior constrictor muscle in the tonsillar bed is laid bare—the efforts required to control the bleeding and nakedness of the muscle are very potent causes of scarring later on. It is not difficult at all to get into the correct layer if one attached importance to it and was not in a hurry—there should be a silver white exposure of both the tonsil bottom and its bed if the correct tissue layer is found—this ends at a point near the lower pole of the tonsil where the tonsillar lymphoid tissue becomes continuous with that behind the tongue. Tonsillar snare is the best instrument to break this continuity provided again that one is not in a hurry. The dissection is done right to the lower end—the whole tonsil is really and truly pulled through the snare loop before it is allowed to cut through.

(c) The control of the bleeding—If the first two procedures have been gone through satisfactorily it is surprising how very little bleeding does take place—the use of the sucker in the tonsillar bed is a very bad thing to do because it does not give clotting of blood in the damaged vessels a chance. It helps you to see the bed but there is nothing you want to see—packing with gauze pieces is ideal—gauze pieces soaked in hydrogen peroxide and then nicely squeezed before use, are better still. Catching bleeding points and then tying them is an unnecessary procedure—Oozers will stop anyway with systematic packing. In my experience even the spurters stop oozing if one had patience. It may be asked why waste time and not do what is done for bleeding points in surgical operations of other parts of the body—the reason indeed is very pertinent—every time a bleeding point is tied you have laid a foundation for fibrosis and future scarring. Bleeders at the lower pole may occasionally need crushing but almost never tying—I would call crushing a lesser evil than tying.

2. Leaving tonsillar remnants is bad when crypts bearing pieces are left—otherwise tonsillar remnants in the lower pole of tonsillar beds are really of no consequence apart from the fact that the surgeon was not good at his art. Patients don't like them when they see their throats in the mirror. Explanations have to be offered later, that tonsils have regrown.

Now I would briefly mention the points I have come to appreciate in a tonsillectomy after watching other people do this operation.

1. Tonsil should be securely grasped—pulled medially and slightly twisted to make an artificial bulge of the anterior pillar. This helps you to have a bloodless incision—I have found Denis Brown forceps a useful instrument for holding the tonsil.

2. A sharp instrument should be used to give a clean and not a jagged incision—a cataract knife on a long handle or a sharp point of serrated dissector are good instruments.

3. The incision should only come up to the upper limit of the anterior pillar—after that the plica semilunaris should be lifted up with a blunt respiratory and divided by means of scissors at the line where it becomes continuous with the mucosa over the medial surface of the tonsil. The incision is then prolonged behind the tonsil saving as much of the mucosa as possible with a deliberate effort.

4. Separation of the tonsil is effected by blunt dissector but a serrated dissector is a useful instrument because you can actually comb the tonsil out and make sure that you get into the correct layer. The adhesions are also easily serrated—scissor cutting is not recommended because it gives more bleeding. I know of a surgeon who after dissecting the upper half of the tonsil got an assistant to hold the head firmly when he just tore the tonsil off from its bed. He believed that it was a good technique to avoid unnecessary bleeding and ensure a quick job.

5. After the upper pole is separated—a cotton wool ball is inserted into the tonsillar bed where the superior pole of the tonsil was. These need quick changing because they soak up depending on the spurting that is so constantly met with at this point—the superior tonsillar vessels. This cotton wool ball looks after the bleeding very admirably—I learnt about these cotton wool balls from a theatre sister while in army service—She called it Madras technique—my gratitude therefore is to Madras Surgeons. I know of a surgeon who would put back the removed tonsil in its bed—This he did temporarily to stop the oozers. He believed that it was a physiological haemostat.

6. After the tonsil is out the cotton wool ball is picked out and spindle shaped hydrogen peroxide squeezed swab is inserted—This looks after all the oozers and spurters while you get on with the other tonsil.

7. The only point worth remembering about the adenoids is that their presence and absence should be felt with the finger before and after their removal to make sure that the job is actually accomplished always.

8. The patient is returned to the ward after cold splashing of the face and the ice collar in a lateral obstetric position with the upper leg on a pillow : —

The third stage of what we do after the operation :—

1. Ice Collar should be removed the moment patient wakes up as it is a very uncomfortable thing.

2. Argyrol 5% in normal saline drops for the nose—four hourly.

3. Proc Penicillin first three days.

4. Asperine gargles, SOS.

5. Vit. C. by mouth to help healing and avoid secondary haemorrhage and counter poor absorption of this component of food when asperine is administered.

6. Ice Cream in the evening.

If the patient must return home on the day of operation—precise instructions should be given regarding the looking after of the patient - I once lost a patient through inexperience during the early part of my career. The operation was done in the month of June - Patient went home the same day but returned three days later with heat stroke as a result of neglect through sheer insufficient fluid intake.

It is a good thing to encourage the patient to swallow and speak. That helps healing - I have known a patient to have followed these instructions a bit too enthusiastically giving rise to submucous bleeding - echymosis of the whole palate though it did not delay healing of the operated area.

At the end - I know I haven't told you anything new but my provocation has been the follow up cases from four corners of India. This paper is merely to sound a note of caution. I would be happy if it has served its purpose - I would be grateful to hear what you would like to add to or criticise what I have placed before you. Thank you.

## TONSILS

**P. V. Cherian (Madras).**—Local anaesthesia in tonsillectomy is satisfactory. Removal of adenoids alone leads to overgrowths of tonsils. Bleeding can be stopped with cotton wool plug soaked in Turpentine Ligaturing does no harm. Tonsil dissecting forceps can be used for incising mucus membrane over tonsils for dissection.

## UVULA

**Dr. Anand (Delhi).**—Recently in one week I had to face two opposite views amongst the patients.

A lady brought her child 8 months old, who was coughing and vomiting, and wanted me to cut the uvula—as she was confident, that uvula was the cause of the child's ailment. It took me sometime to persuade her that her child was suffering from broncho pneumonia. The effects of Terramycine—She also informed me that in Ethiopia she had the uvula removed of all other three children of her.

Then there was an American couple who brought the child—to me as uvula adherent to the tonsil and that the child was having frequent attacks of tonsils.

After the tonsillectomy the uvula though separated from the Tonsil was noticed curved and encroaching in to the tonsillar fossa. The uvula was pretty long, so, m.m. was ligatured and and two m.m. of the surplus portion was removed, leaving atleast one centimeter of uvula.

Two weeks later the patient's parents came almost in tears as some one told them that their child had no uvula on examination. I found that it was only a dot like uvula visible in the centre of the arch. I was bit surprised myself and tried to explain to the parents but they were not to be convinced and were very worried. Luckily I found the condition described "Atrophy of Uvula" in St. Clard Thomson book explain that satisfied the patients to some extent, and still my friends.

## Long standing Chronic Suppurating Otitis Media and its Surgery

BY

Dr. V. S. SUBRAMANIAN, Madras.

The treatment of Chronic Middle Ear Infection is as much a Headache to the E. N. T. Surgeon as the treatment of Bronchial Asthma is to a Physician. By Chronic Middle Ear Infection, I mean cases of many years duration, very often since childhood. This article is based on 54 cases that were operated on by me in the last 4 years. In this, I have not included those that were operated for the classical text-book type of Mastoiditis with tenderness of the Mastoid, slight swelling of the Mastoid region with abolition of the post-auricular groove and sagging of the postero-superior wall of the external auditory canal etc. etc. All these 50 and odd cases were done only for chronic middle ear infection.

Depending on the pathological process present in the different types of chronic middle ear suppuration, Lillie's classification of the several types is worthy of mention. According to him, there are 4 main types depending on the location of the pathological process.

**Type 1.**—The perforation is in the Antero-Inferior Quadrant of the drum and the discharge is of the mucoid type without any odour. This discharge is from the Naso-pharynx and the Eustachian Tube, and the middle Ear is practically devoid of any pathology. The hearing is nearly normal and the quantity of discharge is governed by the attacks of cold. Therefore the treatment is directed mainly to the nose and naso-pharynx.

**Type 2.**—The pathology is mainly in the middle Ear and the perforation is large and of central type. The middle Ear is filled with muco-purulent discharge, and its odour is foetid. The pathology is confined to the middle Ear proper, and the Attic space is usually free. Evidence of granulation tissue and polyps is common in this type.

**Type 3.**—The pathology is mostly confined to the attic region and the perforation may be marginal or be present in the Schrapnell's Membrane Discharge is definitely foul-smelling and

Cholesteatoma is often present. The 50 and odd cases under reference mainly fall under this category. Treatment in my opinion is only Surgical.

**Type 4.**—This consists of all cases where there are signs of extension of disease to the Labyrinth, facial Nerve, meninges or brain. This type needs only Surgery.

**Signs and Symptoms.**—(1) Discharge The quantity, appearance and its odour are the three points which help us a lot in our Diagnosis and Treatment. Foul-smelling discharge, when of dirty greyish yellow colour is indicative of Osseous destruction and attic involvement. Scanty foul-smelling discharge with small white flakes and marginal perforation is indicative of Cholesteatoma. Granulation tissue when present is indicative of an attempt at healing. If the granulation tissue bleeds easily, then the infection has an upper hand over the attempted healing.

**Hearing.**—There was in all cases a definite loss of useful hearing, though the hearing loss was not great in any of the cases. Excessive granulation tissue in middle ear or a big Polyp usually brings the hearing to below practical level. Many of my cases, after operation, showed improved hearing.

**Pain** may be said to be absent in all such cases. It is the absence of pain and the presence of fair amount of hearing which makes most of the patients hesitate to undergo the Surgery. In my opinion, it is the very foul smell of the discharge that makes the patient decide in favour of Surgery.

**Vertigo** when persistent along with Nystagmus indicate actual Labyrinthitis, while transient Vertigo with positive fistula sign indicates bony necrosis without actual involvement of the Labyrinth. Fistula sign was present in about 8 of the cases, while Vertigo was persistent in one and Facial paralysis in two of my cases.

**X-Ray** was taken routinely in all the cases, and the X-Ray reports in 90% of these cases were "Sclerosed Mastoid." Therefore, I do not attach importance to the X-Ray findings, as the lack of pneumatization and sclerosed condition are due to the fact that middle Ear infection in the majority of cases are from childhood and as such pneumatization does not take place. In other cases where the Middle Ear Infection was not from childhood, the sclerotic nature of the Mastoid was due to pathological change of the pneumatic or diploic bone to sclerotic one by the chronicity of the disease, i.e. Sclerosis is secondary to Chronic Suppurating Otitis Media.

The sclerosed condition of the Mastoid bone definitely makes the Surgery difficult and personally, I would not have undertaken Surgery in any of the cases without the Electric Drill and without the magnifying loupe. In other words I would not have undertaken Surgery if I had to do with a chisel and hammer.

I find the Lempert Endaural route to be the ideal method for these cases as the site of operation—viz. Middle Ear and Antrum are best approached by this Endaural route.

**Conclusion.**—In conclusion, (1) I wish to emphasise that the treatment of choice for all long-standing Chronic Suppurating Otitis Media where all conservative treatment has failed, is only Surgery. (2) The Lempert technique of Endaural approach and preferably entering the antrum through the External Bony Canal, instead of through the bony cortex is the safe and sensible method of approach. (3) The operation in all cases is a modified radical one and does not affect the hearing, but often improves it and (4) X-Ray finding is not an important criterion for deciding on Surgery.

#### DISCUSSION

**Dr. R. A. F. Cooper, (Bombay).**—(1) Where is the necessity of doing radical mastoid in case of central perforation as we cannot promise a non-discharging case in cent per cent of cases. (2) Choice of Endaural route which I also employ in all cases is a matter of choice. It has no effect on prognosis of diseases. My choice is endaural route preservation of as much drum as possible and skin grafting for the rest of the cavity. (3) In central perforation I would persist with conservative line of treatment and keep surgical one for marginal perforations with granulations.

**Dr. B. P. Apte, (Poona).**—(1) Whether Dr. Subramanyam advises Mastoid operation for central's perforation (Bilateral) in children. (2) Where is the necessity of doing modified radical operation in cases of central perforation when you advise it for stopping of discharge only? conservative Mastoid will do.

**Dr. Misra, (Lucknow).**—(1) Limitation of lesion—to the middle ear or in the attic only—very difficult to predict, and very rare to find—as proved by the pathology of the disease on operation. (2) Skiagram—patients with big centre perforations show radiological changes in the mastoids. (3) Use of chisels—sharp chisels are just as good. (4) Persistence of discharge after operation—in some cases.

## Abstracts

### The Laminagram as an aid in the Diagnosis of Diseases of the Larynx

By LeROY A. SCHALL, M.D., ALEXANDER S. MACMILLAN, M.D.

AND

PAUL M. G. ST. AUBIN, M.D., Boston, Mass.

(From Annals of Otology, Rhinology and Laryngology, June 1953)

In the evaluation of laryngeal disease, the laryngologist should employ all appropriate methods of investigation to aid in the correct diagnosis. Not only should there be a thorough history, a careful clinical study by indirect and direct laryngoscopy, and laboratory examination of biopsy material, but there should also be a competent radiographic study of the diseased larynx.

Only by means of the lateral, soft-tissue view can the epiglottis, tumors of the anterior and of the posterior commissure, the post-cricoid area, and of the arytenoid area be best seen. The use of barium to outline the related pharyngeal structures need be resorted to only occasionally.

By means of laminagraphy radiological procedure, a roentgenogram is produced having only one section or plane of the body in sharp focus. This plane is approximately 0.5 to 1 cm. in thickness while planes lying above and below are blurred and obliterated. This blurring is the result of motion in opposition directions of the focal point above the patient and the film below the patient during exposure. A line drawn from the focal point to fixed point on the film would rotate, during their motion, through an axis lying in the plane or focus. As a result the shadow cast on the film by a point at the level of the axis of rotation will be in the same position throughout the excursion of the tube and the film, whereas the shadow cast by a point either above or below the axis will strike the film at a different position throughout the excursion resulting in a linear blur. This blurring will obviously be greater the farther the point is from the axis. Sections at various levels in the body can readily be obtained merely by changing the level of the axis of rotation.

In practice the larynx presents an almost ideal structure for laminagraphy. The air outlining the soft tissue of the respiratory passages forms an excellent contrast medium permitting easy visualization of the true and false cords, the ventricles, the trachea and immediate subglottic area, the pyriform sinus, and the vestibule. In addition, calcification of the laryngeal cartilages, which interferes with good visualization in the intrapharyngeal method actually improves the details in the laminagraph by clearly outlining the cartilages in section. The permanent record provided by the laminagram for future comparison and the ability to compare the two sides on the film are of obvious value.

The apparatus employed by us consists of a conventional Bucky table converted with a motor driven detachable laminagraph apparatus which is available for almost any machine. The technique used is as follows :—

Target to film, 41.5 in, Target excursion 14 in 50 Milliampères 48-58 Kilovolts 3 second exposure. Intensifying screen with Potter-Bucky grid.

Positioning of the patient is done in such a way as to obtain comparable films in succeeding sections and in later studies. The patient lies supine with his neck halfway between full flexion and full extension. The head is fixed with sandbags and an adhesive plaster strap is placed under the chin and stuck to the sandbags for additional stability. The beam is then centered halfway between the laryngeal prominence and the tip of the chin. If the ventricles are seen in the previously taken soft-tissue lateral view of the neck, a second lateral view is taken with the patient positioned on the laminagraph table using a portable machine in order to get the ventricles in a vertical position and produce undisturbed section through the ventricle.

In our opinion, laminagraphy is of value :—

- (1) In confirming the findings of both indirect and direct laryngoscopy.
- (2) In furnishing a permanent visual record of the lesion.
- (3) In determining the exact limits of a subglottic extension.
- (4) In visualization of the regression (or extension) of the disease during treatment by external irradiation.
- (5) As an aid in those patients with short, thick necks and a backward tilt of the epiglottis who are difficult to examine under local or general anaesthesia.

Authors have illustrated the article with 43 diagrams and plates.

N. R. AMESUR, Bombay.

### Evaluation of Total Laryngectomy

By LEROY A. SCHALL, M.D., Boston Mass.

(American Academy of Otolaryngology and Otolaryngology, Jan.—Feb. 1954.)

Since 1931 when I performed my first total laryngectomy, 340 patients as of January 1, 1953, have undergone the operation done either by myself or by my associates under my supervision and direction.

In addition to the intratracheal anaesthesia, I use a local infiltration of the skin incision, mostly for its hemostatic effect.

We no longer use the Barretto clamp. The esophagus is cut through below the arytenoid cartilages, and the dissection is continued under direct vision from the least involved side around to the most involved side. The removed specimen should include the body of the hyoid bone with the attached sterno-hyoid and the anterior belly of the omohyoid muscles, the epiglottis, the pre-epiglottic space, the entire larynx, and perhaps one or more tracheal rings.

The pharyngeal opening is closed with no. 00 chromic, atraumatic interrupted sutures in whatever direction closure can be easily done. A re-enforcement, second layer of sutures may be either continuous or interrupted. The skin flap is brought down and all dead space eliminated by buried catgut sutures. The skin is sutured to the tracheal stoma by dermal sutures, and the skin's is closed by either silk or dermal sutures.

In our clinic we are fortunate in having a laryngectomized person, a former speech-correction teacher, in charge of our esophageal voice class on a full-time basis. The patient is interviewed before the operation so that the problems ahead are thoroughly understood. Laryngectomized patients have come to us from all the major centres of the United States and from abroad, and we find that many of them have gone for years in complete ignorance that they could learn to talk again.

### CONCLUSIONS

1. Of 165 patients with cancer of the larynx treated by laryngectomy between the years 1931 and 1948, 100 or 60.6 per cent lived five years or longer without recurrence; 3 died from other causes after five years, leaving 97 or 58.8 per cent alive and well as of January 1, 1953.

2. With the proper voice training 98 per cent of our laryngectomized patients are completely rehabilitated and, if employable, are back at their former work.

3. Contrary to earlier writings, laryngectomized patient is not a woebegone creature living an existence which is worse than death.

N. R. AMESUR, Bombay.

### Surgical Treatment of Carcinoma of the Nose, Nasopharynx and Accessory Sinuses

BY

LEROY A. SCHALL, M.D.

(Progress in Otolaryngology 1952.)

The SYMPTOMS SUGGESTIVE OF MALIGNANT neoplastic disease of nose, nasal accessory sinuses or of both are :

1. Nasal hemorrhage.
2. Nasal obstruction.
3. Painless swelling.
4. Pain referred to the teeth.
5. Anesthesia or paresthesia of the cheek.
6. Unilateral exophthalmos.
7. Sudden or gradual unilateral loss of vision.

TABLE 1. Results.

| Treatment.                                    | No. of cases. | 5-year survival. |
|-----------------------------------------------|---------------|------------------|
| Surgery alone      Primarily Surgical.        |               |                  |
| Surgery alone ...                             | 22            | 12               |
| Surgery plus roentgen ray ...                 | 33            | 10               |
| Surgery plus radium ...                       | 46            | 13               |
| Surgery plus both radium and roentgen ray ... | 80            | 11               |
| Total ...                                     | 181           | 46 (35.1%)       |
| Primary Radiation.                            |               |                  |
| Radiation alone ...                           | 59            | 8                |
| Radiation and surgery ...                     | 8             | 4                |
| Roentgen ray and radium ...                   | 5             | 0                |
| Roentgen ray, radium, surgery ...             | 2             | 1                |
| Total ...                                     | 74            | 13 (17.6%)       |
| Primary Radium                                |               |                  |
| Radium alone ...                              | 3             | 0                |
| Radium plus surgery ...                       | 1             | 0                |
| Radium plus roentgen ray ...                  | 6             | 0                |
| Radium, roentgen ray and surgery ...          | 0             | 0                |
| Total ...                                     | 10            | 0                |
| No treatment ...                              | 4             | 0                |

In this survey, it is interesting to note that those who survived three years went on to survive five years without recurrence. Out of 67 cases in which metastasis was present when the patient was first seen, only 1 survived five years.

In the past twenty years, we have not used surgery in the treatment of neoplastic diseases of the nasopharynx. Our experience with surgery has convinced us that it has no place in the treatment of neoplastic disease of the nasopharynx.

N. R. AMESUR, Bombay.

## IN MEMORIAM



Dr. S. G. JOSHI, M.S.

We regret to record the sad and untimely demise of Dr. S. G. Joshi at the age of 45 years. He was a founder member of our Association and the news of his passing comes as a shock to the members of the Association. He was the Joint Editor of the Indian Journal of Otolaryngology for the first few years; He was the Chief of the Ear, Nose and Throat department at K. E. M. Hospital, Bombay, an eminent Surgeon of inexhaustible energy.

I convey on behalf of the Editorial Board and on my behalf, our sincere condolences to Mrs. Joshi and the bereaved family. May his soul rest in peace.

—The Editor.

## Association Notes

### ASSOCIATION OF OTOLARYNGOLOGISTS OF INDIA

#### Seventh Annual Conference, Amritsar, 1954

Dear Doctor,

The Seventh Annual Conference of The Association of Otolaryngologists of India will be held at Amritsar from 24th to 27th, December, 1954. The Reception Committee extends you a very cordial invitation.

Main feature of the Conference will be the Scientific Session and you are requested to read a short paper based on original research preferably concerning recent problems. Emphasis is to be laid on discussions and you are requested to please contribute your experience by taking active part in them. In addition, arrangements have been made for musical concerts and dramas in the evenings.

Amritsar is a historic city and the climate in December is quite cold. The minimum temperature is 33°F, and you will require a quilt or at least 3-4 blankets at night and warm clothes in the day. Inside Amritsar the places worth visiting are the Golden Temple, Jallianwala Bagh and Durgiana Mandir. Seventeen miles from the city is the Indo-Pakistan border. Two worth seeing places are the well known Bhakra Nangal Dams, Madhopur and Malakpur Headworks, situated respectively at a distance of 104 and 72 miles from Amritsar. The visit to the latter two places will take two days and shall not cost you anything. Please bring your family with you so that they can also avail of this opportunity of visiting various religious and national shrines in Amritsar and modern engineering skill at Madhopur and Malakpur Headworks and Bhakra Nangal Dams.

Arrangements for lodging have been made with Professors and Assistant Professors of Medical College and in the New Hostel, Medical College, Amritsar. It shall be the privilege of the Reception Committee to arrange for your board and lodging free of cost.

Delegates fee is Rs. 10/- and the subscription for the Association Dinner will be Rs. 10/- only.

I am enclosing, herewith, a tentative programme and a form which may please be filled in and returned by the first week of December, 1954.

Thanking you,

**Dr. L. R. DONGREY,**  
*General Secretary.*

**PROGRAMME***Thursday December 23, 1954.*

Meeting of the Governing Body at Dr. Tulsi Das's  
Residence, Lawrence Road, Amritsar.

*Friday, December 24, 1954.***MORNING SESSION.**

|                                                                              |     |                     |
|------------------------------------------------------------------------------|-----|---------------------|
| Registration of Delegates, Introduction of Delegates to the Governor, Punjab | ... | 10-00 to 10-10 a.m. |
| National Anthem                                                              | ... | 10-15 to 10-20 a.m. |
| Welcome Address by the Chairman, Reception Committee                         | ... | 10-20 to 10-40 a.m. |
| Inaugural Address by the Governor, Punjab                                    | ... | 10-40 to 11-00 a.m. |
| Address by the President Elect                                               | ... | 11-00 to 11-55 a.m. |
| Vote of Thanks by the Secretary, Reception Committee                         | ... | 11-55 to 12-00 Noon |
| Bandematram                                                                  | ... | 12-00 to 12-05 a.m. |
| Photograph                                                                   | ... | 12-05 to 12-30 p.m. |
| Opening of the Exhibition                                                    | ... | 12-30 p.m.          |

Lunch—Interval.

**SCIENTIFIC SESSION.**

|                                                                                                                                         |     |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------|
| Opening by the Health Minister, Punjab                                                                                                  | ... | 2-30 to 3-00 p.m. |
| Further Experience on "Role of Exfoliative Cytology in early diagnosis of cancer in Oto-Rhino-Laryngology Service." Dr. B. K. Sen Gupta | ... | 3-00 to 3-20 p.m. |
| Discussion                                                                                                                              | ... | 3-20 to 3-40 p.m. |
| Malignant Disease of the External Ear. Dr. G. D. M. Taneja                                                                              | ... | 3-40 to 4-00 p.m. |
| Discussion                                                                                                                              | ... | 4-00 to 4-20 p.m. |
| Glomus Jugulare-Case Report, Dr. R. Venkata Rao.                                                                                        | ... | 4-20 to 4-30 p.m. |
| Discussion                                                                                                                              | ... | 4-30 to 4-40 p.m. |
| Two cases of Tumor in Lateral Pharyngeal Wall. Dr. G. Narayanan                                                                         | ... | 4-40 to 4-50 p.m. |
| Discussion                                                                                                                              | ... | 4-50 to 5-00 p.m. |

**TEA.**

Dinner to be followed by a Concert, (Library Hall  
Medical College, Amritsar) ... 8-00 p.m.

*Saturday December 25, 1954***MORNING SESSION.**

|                                                            |     |                     |
|------------------------------------------------------------|-----|---------------------|
| Symposium on Naso-Labial Cyst                              | ... | 9-00 to 9-30 a.m.   |
| Opener-Major K. K. Ghosh                                   | ... | 9-30 to 10-00 a.m.  |
| Seconder - Dr. R. Venkata Rao                              | ... | 10-00 to 10-20 a.m. |
| Supporter - Dr. B. K. Sen Gupta                            | ... | 10-20 to 11-00 a.m. |
| Discussion                                                 | ... | 11-00 to 11-10 a.m. |
| Closing Remarks                                            | ... | 11-10 to 11-40 a.m. |
| Surgery of Hypo-Pharyngeal Cancer. Dr. Santokh Singh Anand | ... | 11-10 to 11-40 a.m. |

|                                                                                   |     |                     |
|-----------------------------------------------------------------------------------|-----|---------------------|
| Discussion                                                                        | ... | 11-40 to 12-00 Noon |
| Lateral Sinus Thrombosis-A few case reports                                       | ... | 12-00 to 12-20 p.m. |
| Dr. M. D. Adappa                                                                  | ... | 12-20 to 12-35 p.m. |
| Discussion                                                                        | ... | 12-35 to 12-50 p.m. |
| Is Cardiac Sphincter an Anatomical Entity. Dr. Indarjit and Dr. Sewa Singh Makhni | ... | 12-50 to 1-00 p.m.  |
| Discussion                                                                        | ... |                     |

Lunch Interval

**EVENING SESSION**

|                                                      |     |                   |
|------------------------------------------------------|-----|-------------------|
| Some Experience in Fenestration. Dr. R. A. F. Cooper | ... | 2-30 to 3-00 p.m. |
| Dr. Subramanian                                      | ... | 3-00 to 3-30 p.m. |
| Discussion                                           | ... | 3-30 to 4-00 p.m. |
| Rhinoplasty—Dr. R. Venkata Rao                       | ... | 4-00 to 4-20 p.m. |
| Discussion                                           | ... | 4-20 to 4-40 p.m. |
| Tracheotomy in Bulbar Polio and Allied Conditions.   | ... | 4-40 to 4-50 p.m. |
| Dr. Sukhanand Jain                                   | ... | 4-50 to 5-00 p.m. |
| Discussion                                           | ... |                   |

**TEA**

Dinner by President Elect ... 8-00 p.m.

*Sunday December 26, 1954.***MORNING SESSION**

|                                      |     |           |
|--------------------------------------|-----|-----------|
| Business meeting of the General Body | ... | 9-00 a.m. |
| Lunch Interval                       | ... | 1-00      |
| Local Excursions                     | ... | 2-30 p.m. |

*Monday December 27, 1954.*

Excursions to Malakpur and Madhopur Headworks and  
Bhakra Nangal Dams.

(Minor adjustments will, however, be made after receipt of  
papers from all the speakers).

**HYDERABAD STATE BRANCH**

OF

**THE ASSOCIATION OF OTOLARYNGOLOGISTS, INDIA**

The Annual General Body Meeting of the above association was held  
on 28—11—54 at the I. M. A. Building, Sultan Bazar, Hyderabad (Dn.)  
The following members were elected to the Managing Committee for the  
year 1954—55.

*President:* Dr. S. K. Jatar.

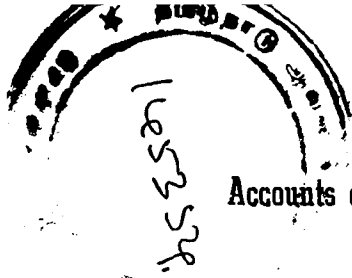
*Hony. Secretary and* } K. Keshav Kumar.  
*Treasurer*

*Members:* 1. P. Rama Raju.  
2. K. Rangacharyalu.  
3. S. A. Jain.

The meeting ended with a Buffet Dinner.

7—12—1954.

**K. KESHAV KUMAR,**  
*Hony. Secretary.*



5L  
L18374m2, N4907 N526.64

Accounts of the Journal of the Association of Otolaryngologists of India with the Hony. Treasurer at Madras  
Receipts and Payments for the Year ending 30—9—1954.

| RECEIPTS.                     | Rs.   | A. | P. | PAYMENTS.                          | Rs.   | A. | P. |
|-------------------------------|-------|----|----|------------------------------------|-------|----|----|
| To Opening Balance—           |       |    |    | By Printing Charges                | 2,302 | 3  | 6  |
| On S. B. Account with         |       |    |    | „ Establishment Charges            | 240   | 0  | 0  |
| Canara Banking Corpo-         |       |    |    | „ Postage                          | 129   | 0  | 0  |
| ration Ltd., as on Rs. A. P.  |       |    |    | „ Bank Charges                     | 12    | 14 | 0  |
| 1—10—1953                     | 4,330 | 7  | 9  | „ Bank Incidental Charges          | 1     | 8  | 0  |
| Cash with Clerk (Contin-      |       |    |    | „ Cheque returned Rejected         | 125   | 0  | 0  |
| gencies account)              | 25    | 7  | 9  |                                    |       |    |    |
|                               | 4,355 | 15 | 6  | „ Closing Balance—                 |       |    |    |
| „ Central Office Contribution | 672   | 0  | 0  | On S. B. Account with              |       |    |    |
| „ Advertisement               | 4,635 | 0  | 0  | Canara Banking Corpora-            |       |    |    |
| „ Subscription to Journal     | 60    | 0  | 0  | tion as per Pass Book on Rs. A. P. |       |    |    |
| „ Interest from Bank          | 83    | 12 | 0  | 30—9—1954                          | 7,021 | 12 | 9  |
| „ Sale of Reprint Article     | 45    | 0  | 0  | Cash with Clerk (Contin-           |       |    |    |
|                               |       |    |    | gencies account)                   | 19    | 5  | 3  |
|                               |       |    |    |                                    | 7,041 | 2  | 0  |
| Total                         | 9,851 | 11 | 6  | Total                              | 9,851 | 11 | 6  |

(Sd.) R. VENKATA RAO,  
President.

(Sd.) C. A. AMESUR,  
Honorary Chairman.

(Sd.) P. V. CHERIAN,  
Honorary Treasurer.

Examined and found correct.

MADRAS,  
1st December, 1954.

(Sd.) K. JOHN & CO.,  
Chartered Accountants (Honorary Auditors.)