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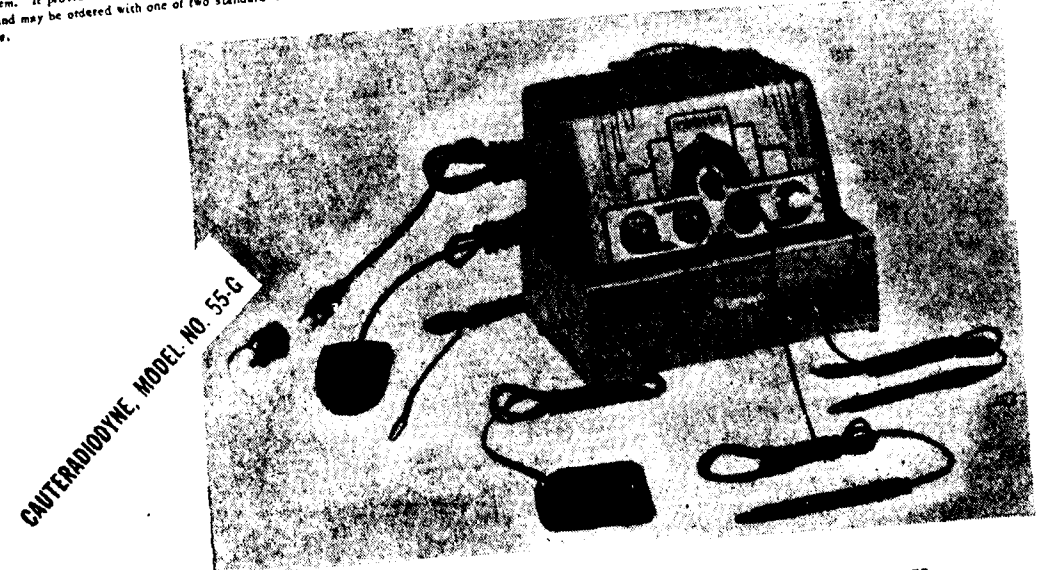
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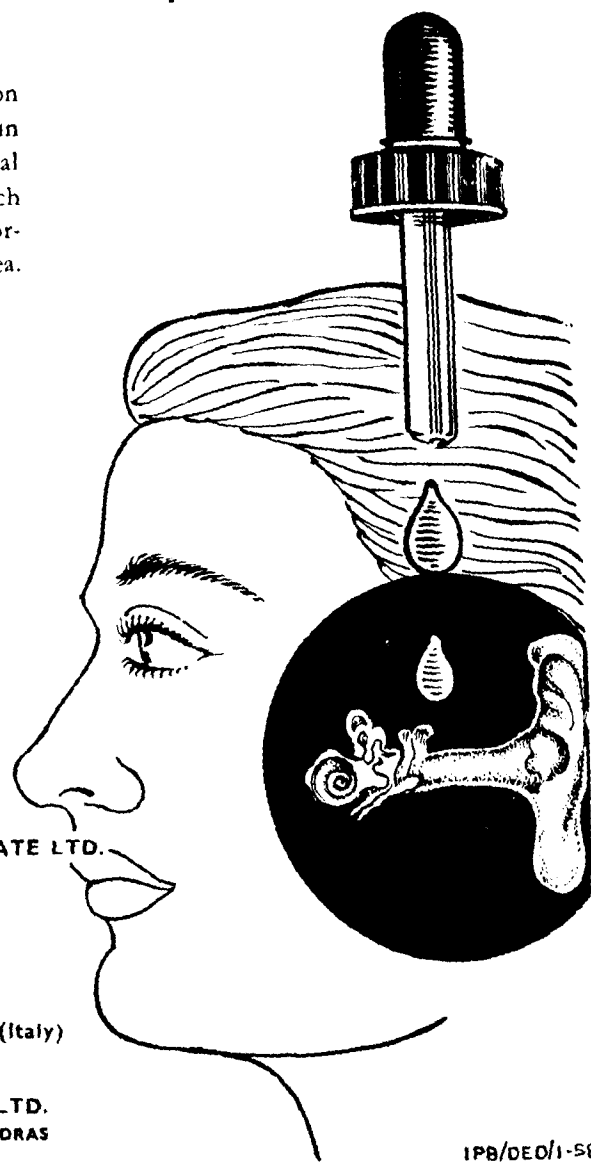
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Concomitant Otitis Media in Relation to Gastro-Enteritis in Children

BY

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Otitis media may exist concomitantly with other systemic diseases such as Dysentery or Diarrhoea, Nephritis etc. Dean (1927) used the term 'Otitis concomitans' to describe such otitis when it exists with other systemic diseases. Other diseases frequently concomitant with otitis as mentioned by Eggston and Wolff are scarlet fever, measles, mumps, chicken pox, diphtheria, osteomyelitis, pneumonia, tuberculosis, and occasionally diabetes. This paper is confined to one type of 'Otitis concomitans' only namely, otitis media in association with gastro-enteritis in children. According to Ballenger (1957), 'The syndrome of acute non-specific gastro-enteritis in infants with an associated otitis media is now recognised as a clinical entity'. Our interest was aroused in this subject due to the fact that quite a good number of children attending E.N.T. O.P. Dept. of our hospital with complaints of otorrhœa, have in addition, diarrhoea as co-existing complaint. Similar association has also been pointed out on many occasions by the Paediatricians of our hospital in children attending the Children O.P. Dept. In all 153 cases have been studied during last year (1958) at our hospital out of which 30 were Indoor and 123 Outdoor cases.

Much of the available world literature on otitis media in children is based on post-mortem records and indiscriminate operative findings, the operations being undertaken mostly to exclude otitis media as a cause of diarrhoea without a thorough otoscopic examination: or even where the drum head was normal. Thus we find in the literature such expressions as 'Latent otitis', 'Overlooked otitis', 'Undiagnosed' or 'Unsuspected otitis'. It is obvious that clinical examination of these children was incomplete during life, and whatever relationship that had been established is posthumous. Following extracts from Literature will amply illustrate the above remarks.

Jean (1927) stressed that otitis media may cause refusal of food, malnutrition and loss of weight in babies, and maintained that they were sufficient indications for myringotomy and even of mastoidectomy.

Wishart (1930) advocated that puncture of the mastoid antrum for diagnosis should not be recommended and added that mastoidectomy as a cure for this condition was a failure. Operation should be postponed as long as possible. Carmack (1930) also maintained that no mastoid should be opened without clinical evidence of disease in the mastoid space.

Dumas, Ramadier, et al (1936) reported that 10% of the cases in their series were submitted to antrotomy because of diarrhoea with severe dehydration and acidosis for which no cause had been found and which did not improve after a few days of usual treatment.

Ebbs (1937) remarked that in his opinion indiscriminate operations upon the mastoid antrum in infants with acute gastro-enteritis would be as disastrous as if no form of treatment was instituted.

Leathart (1941) said that it was a common knowledge that on post mortem examination of children, having died of air or food borne infections, (*viz.*, pneumonia, gastro-enteritis, etc.) 'Undiagnosed mastoiditis' was often discovered.

According to Ninger (1944), myringotomy was indicated in every case of typical pathological changes of tympanic membrane and also in cases of uncertain finding. He considered presence of cone of light as a certain sign that there was no otitis media. Wiskovsky (1946) however, maintained that cone of light was only of minor importance and could be present in older infants even when there was an otitis media. Tetera (1946) described 2 cases where the drum, including the cone of light was absolutely normal, but he found pus in the antrum when performing mastoidectomy. Amongst the various indications of mastoidectomy suggested by Hall (1947), one was as an exploratory measure in refractory cases where no cause could be found for the gastro-intestinal symptoms to exclude the possibility of a 'Silent mastoid'. Crooks (1947) & Hall (1947) reported cases in which they opened mastoid and found nothing abnormal, but the baby started to get better—no one knew why, but it did happen.

Our approach to this problem is mainly clinical which includes detailed history as regards onset, symptomatology, nutrition, socio-economic conditions; meticulous exclusion of other medical conditions concomitant with otitis media and other causes of diarrhoea through detailed physical examination in collaboration with the paediatrician; and pathological, bacteriological and radiological investigations; otoscopic examination; response to treatment and follow up. We could do post-mortem dissection of temporal bones only in two cases and the findings confirmed our clinical diagnosis of 'Otitis concomitans' in both these cases.

ETIOLOGY

Very divergent views are expressed in the literature regarding the relationship between otitis media and gastro-enteritis in children. One school holds that disease of the ear is the cause of infection of gastro-intestinal system, others deny this connection. Earliest observations on possible association between ear condition and gastro-intestinal disturbance came from Hartman (1894) who remarked that intestinal disturbances improved after

paracentesis. Cone (1931), put forth an interesting theory, that middle ear and mastoid infections produced metabolic changes that resulted in decreased acidity of stomach content, and that this allowed infection in the upper part of the bowel and stomach from *B. Coli* which in turn caused gastro-enteritis. *B. Coli*, he maintained was viable in stomach cultures with decreased acidity, the cause of infection being contaminated feeding.

Ebbs (1937) recognised three aetiological groups in cases of diarrhoea and vomiting syndrome on the basis of post-mortem figures. The largest group, according to him consisted of those cases of diarrhoea and vomiting which were secondary to an upper respiratory infection. This infection might be so slight as to be unrecognised in a young infant. Otitis media usually became evident in this group either at the onset, or at a later time, but it was not necessarily present. The second group, also a large one, consisted of cases beginning with one of a great variety of parenteral infections which developed diarrhoea-vomiting syndrome only in course of illness and sometimes as a terminal event. Examples in this group were abscesses, eryseplas, otitis media etc. The third group, the smallest, was of cases due to definite enteric infection and in other words true dysentery. He did not consider that infection was confined to the middle ear and mastoid antrum. According to him infection any where in the body of the child with low powers of resistance was capable of producing diarrhoea-vomiting syndrome.

Adams (1937) regarded 'Otitis' and 'Mastoiditis' as identical in children. He divided these cases into two main groups one he designated as 'Primary otitis', in which the only pre-existing illness was common cold and in which diarrhoea and vomiting develop later. The other group was that of 'Secondary otitis' or otitis complicating some other illness, *e.g.*, diarrhoea and vomiting. Leathart (1943) considered diarrhoea, vomiting and dehydration in infants to be caused very often by the normal harmony between para-sympathetic and sympathetic innervation being upset in favour of the former by an inflammation of

the tympanic cavity and mastoid antrum, which are supplied by para-sympathetic fibres from 7th and 9th cranial nerve. When these cavities are inflamed, these nerve endings are stimulated causing para-sympathetic reflex, whose afferent limbs travel in the 7th and 9th nerve, the efferent limbs in the 10th which supplies the intestines with secretory fibres—hypersecretion being evidenced by diarrhoea, vomiting and dehydration.

Hall (1947) remarked that initial cause of acute-nonspecific gastro-enteritis might be a 'trigger response' to some virus, once started this response could be produced by any subsequent stimulus, of which otitis media was one. According to Logan Turner (1952), there was a definite relationship between otitis media and gastro-enteritis in infancy. The discharge from an infected ear could drain quite easily into the pharynx *via* the short and wide eustachian tube of the child with the possible production of gastro-enteritis and without any obvious signs of a middle ear infection being present. On the other hand the vomit in a case of gastro-enteritis might be forced up the eustachian tube by the reverse method thereby infecting the middle ear and a vicious circle established.

Our views regarding the etiological relationship between otitis media and gastro-enteritis are somewhat in agreement with those of Ebbs (1931), and Krassing (1932)—the association between otitis media and gastro-enteritis being more due to lowering of resistance in a child than to any particular specific cause. It may be pointed out here that we did bacteriological examination of aural, rectal and throat swabs as a routine in most of the cases but we failed to culture an identical organism in any of the three swabs at one time. Even organisms cultured from aural swabs of both sides often did not coincide. To sum up one may say that there were certain predisposing factors and precipitating factors which favour the association of the two conditions.

(A) PREDISPOSING FACTORS

(1) **Age.** In our series the age incidence was more or less equal in distribution upto 3 years of age and then declined. Above 5 years the incidence was only 3.2%. Some of the Western observers have however reported the association limited exclusively to first twelve months of life. In our opinion no child is exempt. It is in all probability a matter of developing resistance to infection. In India children seem to develop it at a later age; or it is just possible that our children also acquire infection quite early in infancy due to environmental and hygienic condition but they persist on for quite a long time in a state of chronic ill health as a result of concomitant otitis media with associated gastro-enteritis before they finally come under our observation—hence higher age incidence in our series.

(2) **Sex.** Males somehow suffer more than females. In the present study 61.3% cases belong to male sex and 38.5% are females. Eggston & Wolff (1947) and Mares also reported higher incidence in males.

(3) **Season.** Rainy season seems to favour the occurrence of the two diseases concomitantly. Other workers in the past who reported the influence of season were Salzberger, et al (1933) and Hall (1947).

(4) **Localisation.**—Bilateral otitis media is concomitant more often with gastro-enteritis than unilateral—64% as against 35.2% unilateral cases. It is significant to point out here that higher frequency of bilateral cases belong to first 3 years in our series, above which majority of the cases are unilateral.

(5) **Environmental, Hygienic and Economic factors.**—Poor children living in unhygienic and over-crowded houses alone happen to develop this association. In the present series nearly all the cases belonged to very poor families. Only in 8 cases the income of parents was more than 80/- p.m. and they could be said to belong to the lower middle class family. None of the cases were from rich families. Alexander (1931) held similar views.

(6) **Nutrition.**—Malnutrition and artificial feeding play a major role in the development of association between the two diseases. All the cases in the present series were poorly nourished. 57% of the cases in 0-1 year age group were artificially fed, while 20% were fed both on artificial and breast milk; only 22% of babies were fed on breast milk in this age group.

(B) PRECIPITATING FACTOR

Occurrence of either of the two conditions precipitates the onset of the other principally by lowering the resistance of the child; in other words, in some cases otitis media is 'primary' and in other 'secondary'. This view is partly in agreement with that of Krassing (1932) and partly with that of Ebbs (1937). Krassing considered the occurrence of otitis in association with dyspepsia to be due to decreased general resistance as a result of dyspepsia, whilst Ebbs considered that infection anywhere in the body of child with low powers of resistance of which otitis media is one, is capable of producing diarrhoea and vomiting syndrome. It may be pointed out here that this association is seen only in children and not in adults who obviously on account of greater powers of resistance do not allow such an association to develop.

SYMPTOMATOLOGY

In the symptomatology 'otorrhoea' is the most dominant feature of concomitant otitis media in the present study, being found in 88.8% of the cases. The western workers however have reported otorrhoea to be uncommon. McGibbon reported only 8.9% cases while Mares (1948) found it only in 11.4% cases. This marked disparity may be explained by the following points:—

(1) Children in our country are brought to the hospital at a late stage when spontaneous perforation has occurred and otorrhoea set in. Symptoms pointing to middle ear infection are either very few or not taken notice of by the parents. It is only when otorrhoea has set in and persisted for quite a long time that the attention of parents to child's ears is drawn.

(2) It needs no emphasis to point out that children in our country are definitely of lower resistance and vitality than in western countries. It is therefore most probable that children in our country malnourished as they are with, in addition, low powers of resistance to infection are unable to overcome the acute attack of otitis media with the result that arrest of middle ear inflammation does not occur, and otorrhoea supervenes.

(3) Lastly it will be noted from the review of literature that mostly the observations of western otologists are based on post-mortem records of children who were admitted and treated in the hospital for gastro-enteritis by the paediatricians and in whom oto-mastoiditis was discovered only after death. It is therefore most likely that a small perforation with scanty discharge not only escaped the notice of the parents, but also of the paediatricians.

Other classical symptoms pointing to middle ear cleft infection found in adults were almost nil. Pain in the ear was complained of by 7 cases aged more than 3 years. In the 16 cases only the parents gave the description suggestive of pain in the child's ear. This was evidenced by the history of child rolling its head or burying its head in the pillow, child tugging at its ears, or bringing its hand to the affected side and rubbing its ears, screaming attacks in the night and pain during swallowing.

Temperature curve was irregular in the entire series. In 9 cases fever was noticed only in the night by the parents. Hyperpyrexia was seen only in 5 cases. In 13 cases there was persistent low grade pyrexia. In the remaining cases temperature was normal or even subnormal.

The signs of middle ear cleft infection were evidenced on clinical otoscopic examination by one or more of the following factors:

- (1) Foul smelling muco-purulent discharge.
- (2) Enlargement of glands along the posterior border of the sterno-mastoid muscle.

Concomitant Otitis Media in Relation to Gastro-Enteritis in Children



No. 1-a
Before Myringotomy.



No. 1-b
After Myringotomy Follow up 2 months.



No. 2-a
Before Mastoidectomy.



No. 2-b
After Mastoidectomy Follow up 2 months.



No. 3-a
Before Mastoidectomy.



No. 3-b
After Mastoidectomy Follow up 3 months.

- (3) Perforation in the tympanic membrane.
- (4) Pathological drum head appearances (without perforation).
- (5) Granulation middle ear.
- (6) Mastoid tenderness elicited in 2 cases only.
- (7) Sagging of postero-superior meatal wall—2 cases.
- (8) Aural polypi—2 cases.
- (9) Mastoid abscess—2 cases.
- (10) Facial paralysis—2 cases.
- (11) Pain on pressure over the canal—2 cases.

All had
otorrhoea.

Pathological Drum Head Appearances (without perforation of drum) were noted in 51 cases. Out of these in 20 cases the pathological drum head appearances were noted on one side, and frank otorrhoea with perforation in the drum on the other side. In the remaining 31 cases the drum heads were pathological either on one or both sides. All these drum heads presented one or more of the following findings:

- (1) Absence of cone of light.
- (2) Loss of lustre.
- (3) Loss of maleolar prominence.
- (4) Red and congested drum (localised or generalised).
- (5) Bulging—localised or generalised.

In five of these cases myringotomy was performed. In one case exploratory tympanotomy by Rosen's incision was performed. One case—fulminating one, died inspite of intensive hydrotherapy, and post-mortem dissection of temporal bone in this case confirmed our clinical diagnosis of left sided mastoiditis. The remaining 44 cases were subjected to conservative

treatment and out of these in 21 cases spontaneous perforation of drum occurred while in the remaining 23 cases the drum head returned to normal with improvement in gastro-intestinal symptoms.

In the symptomatology of gastro-enteritis diarrhoea was present in all cases. Vomiting was present in 37 cases all except 9 belonging to the category of severe cases. It was the only gastro-intestinal complaint in 7 severe cases, elsewhere it was associated with diarrhoea. It is interesting to point out that the different workers in the past have described diarrhoea and vomiting under a variety of terms, such as gastro-enteritis cholera infantum, colic, intestinal intoxication, dyspepsia, parenteral diarrhoea etc.

All gradations from mild to fulminating occurred in the present series. *Mild cases* constitute the majority (106). Onset was insidious, diarrhoea mild, consisting of passage of never more than 5—6 stools per day. The stools were loose, sometimes more fluid, yellow or green. In quite a good number of cases the stools contained curds and were usually offensive. The development of the child was slower, the baby showed progressive of weight and failed to thrive. The clinical course of such cases was characterised by (a) Rapid and dramatic recovery to specific therapy, if organisms drug sensitive, though relapses were frequent. (b) Occasionally recovery was delayed, baby persisting in this stage for days and weeks with periodic exacerbation and improvement. During exacerbations dehydration often occurred.

Severe cases. (46) Onset was sudden, with diarrhoea and/or vomiting pre-dominating. Marked dehydration and toxamia were present. The number of motions in these cases were 10—20 per day. The stools were watery, green, contained little faecal matter, and rarely offensive. These cases also responded rapidly to conservative treatment of diarrhoea and vomiting, but usually they went on to the chronic phase, and subsequently presented symptoms as in mild cases.

Fulminating cases. (only 1) The onset in this case was sudden, copious vomiting followed by violent diarrhoea. Rapid toxamia and dehydration, uncontrolled by transfusion occurred, and baby died. Post mortem dissection of temporal bone revealed gross evidence of latent mastoiditis on the left side.

RESPONSE TO TREATMENT

Only the treatment of aural conditions and its effect on gastro-intestinal symptoms are discussed. The general treatment is paediatric problem and so omitted from the discussion.

(a) **Conservative treatment.**—Mostly cases were having otorrhoea from one or both ears. Treatment in these cases usually consisted of ear drops e.g., boric spirt ear drops, and antibiotic ear drops (after testing the sensitivity of organisms). Systemic administration of antibiotic was not advised in these cases, except penicillin and streptomycin when aural organisms were sensitive to them. Simultaneous treatment of gastro-enteritis was carried out in all severe cases, and in all those mild cases where there was exacerbation of diarrhoeal symptoms. In those cases where diarrhoea was mild, treatment of diarrhoea was withheld purposely to see the effect of treatment of aural condition on the diarrhoea. Out of the 60 cases of concomitant otorrhoea thus treated with a follow up of 1—3 months, marked improvement in gastro-intestinal symptoms occurred in 26 cases, partial improvement in 23 cases, no improvement in 11 cases. The effect on otorrhoea was either partial, characterised by temporary diminution or cessation of otorrhoea in 35 cases, or nil in 25 cases,—the ear discharge remained constant or intermittent as before.

All those cases who showed pathological drum head appearances, the conservative treatment of otitis consisted of Ephedrine nasal drops with systemic penicillin or combiotic injections and/or Sulfonamides orally. Out of 44 cases, in 20 the treatment of otitis was combined with treatment of diarrhoea, and in these 20 cases, spontaneous perforation of the tympanic membrane occurred in 5, the remaining 15 cases showed arrest of the middle

ear inflammation as evidenced by return of drum head appearances to normal with improvement in G.I. symptom. In the remaining 24 cases out of total of 44, treatment of diarrhoea alone was carried out and in these 16 cases went on to spontaneous perforation of the tympanic membrane while 8 cases showed improvement in drum head appearances and gastro-intestinal symptoms.

(b) **Operative treatment.** In all 20 cases were submitted to operative interference. In 5 cases bilateral myringotomy was performed. All these cases were of severe diarrhoea and showed pathological drum head appearances and it was possible to trace a favourable reaction (Photo No. 1 small (a) and (b), after myringotomy in all but one case, who developed hyperpyrexia in the evening following myringotomy, diarrhoea two days later, the infant dying on 7th day after myringotomy. The culture of paracentesised fluid in this case was proteus organism on one side and staph albus on the other. Autopsy confirmed the clinical diagnosis of concomitant otitis media in this case. In the remaining cases diarrhoeal symptoms improved remarkably, though otorrhoea continued to persist in 3 cases. The average time of operative interference (mastoidectomy) was 30 minutes, and was carried out under general anaesthesia. In all cases radical operations were done except in one case in whom atticotomy was done. Operation in all the cases was done by post-auricular route and in all oto-mastoiditis was discovered, as evidenced by gross appearance and also by histological examination. Response to operation particularly in the immediate post operative phase, was most gratifying as was evident by the improvement in the general condition of all children except one who died on the day of operation. The average period of stay after the operation of all these cases was more than a fortnight, so that it was possible to form an idea regarding the effect of operation on the general condition. The case who proved fatal was brought to the operation theatre in a very low condition having secondary anaemia, edema over the extremities, with severe malnutrition. The child was not responding to the

conservative treatment and operation was done in consultation with paediatrician in a desperate bid to give him a chance to live. The child was given 150 cc. of blood transfusion during the operation which lasted 25 minutes only. The obvious conclusion from this case is that operative interference should not be postponed and the conservative treatment persisted upon until the child is completely moribund.

The view of Wishart (1930), that mastoidectomy was a failure and that operation should be postponed as long as possible is untenable. Nor the views of otologists who recommended local anaesthesia (Hall & Watkyn Thomas) and ultra short operation (Williams) are justified in the present era of modern surgery and anaesthesia, more so when one sees that all the children (except one) submitted for operation tolerated general anaesthesia nicely without any complication and untoward effect and for sufficiently long period.

Follow up in operated cases of more than 3 months was possible only in 8 cases while follow up of more than 2 months was possible only in 3 cases. 4 cases could be followed up for only 1 month. The remaining 3 cases could not be followed up. All these cases showed tremendous weight increase in the follow up period (Photo No. 2 and 3) without any recurrence of diarrhoeal symptoms—thus the cause and effect relationship has been established by the infallibility of therapeutic test *i.e.*, cure of diarrhoea after successful treatment of ear infection.

CONCLUSIONS

1. The disease is not confined exclusively to children below 1 year of age.
2. All grades of severity of the disease are met with.
3. Otoscopic examination of ears in all cases of gastro-enteritis in children should never be neglected.
4. The association between otitis media and gastro-enteritis is more due to lowering of resistance than to any particular specific cause.

5. Operative interference need not be too quick - aim should be to deal with maximum pathology in as short time as possible, stress being on the pathology rather than on the time factor.

6. Local anaesthesia is not essential. The children can tolerate the general anaesthesia even when quite weak with proper pre-operative preparation.

7. The response to operative interference is favourable.

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Olfactory Modifications of Larynx

BY

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INTRODUCTION

The olfactory sense, is primarily a sense of first importance that has gradually been replaced by other senses during the course of phylogeny. The earliest crawling terrestrial vertebrates began their life in aromas of olfactory world. Besides being of paramount significance in the survival of the animal, it is of none the less importance, in search of food and the mate for the species. With increasing emancipation from lowly ground life and assumption of the erect posture, the major senses of sight and hearing assumed a vital role, and consequently the olfactory senses moved more and more to the background. The air borne nature of the sense of smell, makes it evident, that nasal respiration is absolutely essential for efficient olfaction. The larynx occupies a strategic position in the set up of pulmonary system. Though primarily evolved for purposes of protection of air passages and lungs, the larynx has important functions in relations to olfaction, deglutition and phonation also Negus (1949). The olfactory functions of the larynx are perfected by the development of epiglottis in macrosmatic animals. Negus (1927) and Bhargava (1957), after a detailed study of comparative anatomy of larynx have drawn attention to the function of the epiglottis in relation to olfaction. Bhargava (1958) has further shown that extent of the overlap of epiglottis by the soft palate varies directly with the degree of olfactory development of the animals.

MATERIAL AND METHODS

The present series includes a study of 35 animals, which include 4 fishes, 1 amphibian, 5 reptiles, 2 birds and 23 mammalian species, representing all the orders found in this part of the country. Besides this, human embryos of different ages ranging

from 3 months to full term were also studied. The comparative anatomy of the larynx and the olfactory development of these animals was carefully studied by dissection.

OBSERVATIONS

1. In all the four lung fishes dissected, a rudimentary larynx of the nature of a fibrous or cartilaginous ring round the air sac was seen. All of them have a very poor sense of olfaction.
2. Though more efficient, the amphibian larynx is still rudimentary and has no epiglottis. The frog has to breathe with its mouth closed, thereby directing a continuous stream of air over the olfactory epithelium of the nose, for efficient olfaction.
3. All the five reptiles, show the same bellows type of breathing and therefore satisfactory olfaction. The larynx is still rudimentary and does not show the presence of epiglottis. However, in crocodiles, the nasal and laryngeal openings are coapted by the elongation of hard palate.
4. In all two birds were studied. These skymasters live outside the range of aromas, and place greater reliance on the sense of sight than smell. Their larynx too is not fully developed and does not show the presence of epiglottis. They coapt the nasal and laryngeal passages by elevating the laryngeal opening, with every act of respiration.
5. In all 23 species of mammals including Scaly Anteater, Flying fox, Mongoose, Tiger and Dolphin were dissected. Except Man and Monkey, all of them showed a keen sense of smell, as adjudged by a study of their habits, the complexity of the nasal turbinals and the relative size of the olfactory bulb in relation to rest of the brain. In all the animals except man, the soft palate and epiglottis were overlapping each other to varying extent. The degree of overlap was measured as percentage of total length of the epiglottis, and it was found that better the olfactory development of the animal, greater is the degree of Palato-epiglottic overlap. A study of the size and shape of the epiglottis showed that in macrosmatic animals, the epiglottis is better developed.

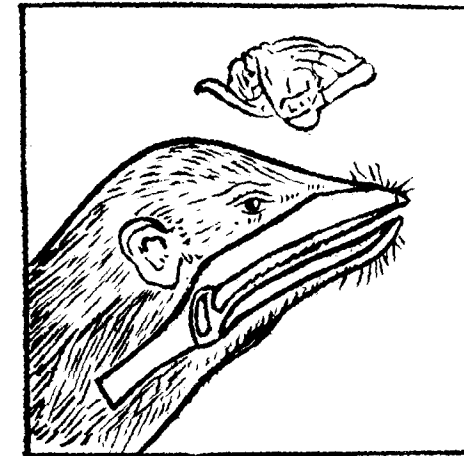


Fig. 1

Mongoose (*Herpestes javanicus pellipes*).



Fig. 2

Tiger (*Panthera tigris tigris*).



Fig. 3

Dog (*Canis familiaris*).

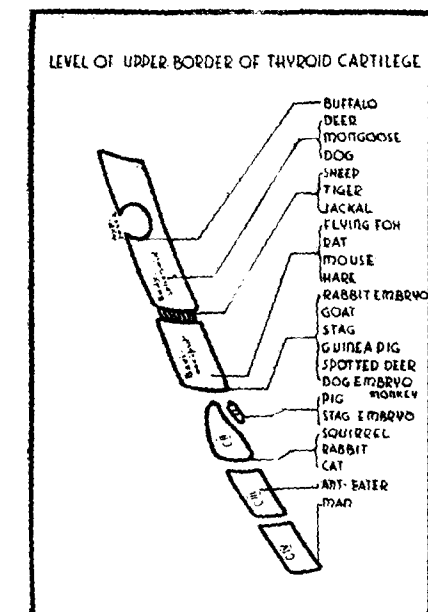


Fig. 4

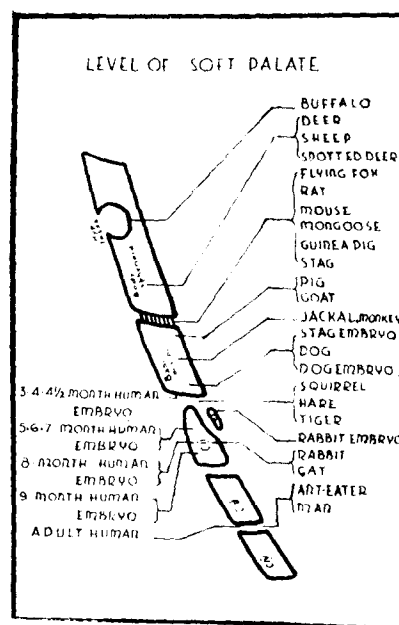


Fig. 5

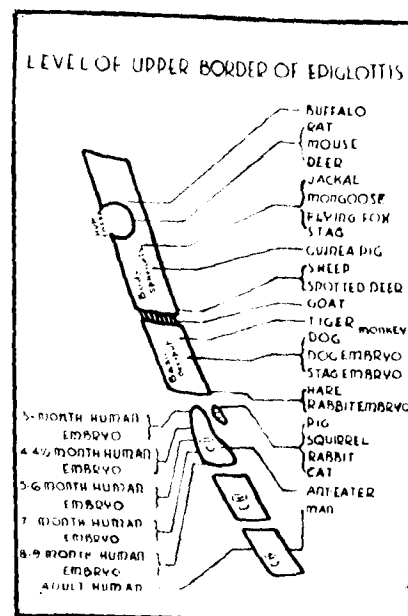


Fig. 6



Fig. 7
Man (*Homo sapiens*).

Besides Dog and Jackal, all the animals having palato-epiglottic overlap, had the epiglottis lying behind the palate *i.e.*, occupying an intra-narial position (Fig. 1 and 2). In Dog and Jackal, the epiglottis was seen in front of the palate *i.e.*, occupying an intrabuccal position (Fig. 3). The relative levels of the larynx, soft palate and epiglottis, in relation to the skull and vertebral column, in all the mammals and human embryos, are shown in figures 4, 5 and 6.

In man and the human embryos, a wide gap was seen between the soft palate and epiglottis (Fig. 7).

DISCUSSION

Most of the premammalia have a poor sense of olfaction. Therefore their larynx does not show any significance modification for this purpose. The opposite is true of the mammals, who have to maintain a keen sense of smell for their survival. Not only they should have an acute olfaction, but should also have a mechanism to permit simultaneous eating and breathing, as it is absolutely essential that the sense of smell remains at work while the animal is eating its food. This end can be achieved by providing a partition between the buccal cavity and the air passages, which permits the passage of food in swallowing, and at the same time prevents mouth breathing. It is obvious that for an efficient olfaction, all the scent laden air should be inspired through the nose, so that it comes in intimate contact with olfactory epithelium. Such a partition is provided by the development of soft palate and epiglottis, and degree of their development (Negus 1927, 1949), and overlap is related directly to the sense of smell (Bhargava 1957, 1958).

The intrabuccal position of epiglottis in Canidae family (Dog and Jackal) serves yet another function. In these animals all the inspired air enters through the nose, thereby maintaining efficiency of olfaction. During expiration, the intrabuccal epiglottis permits the exit of air through mouth. In this way moisture is taken away from the tongue and the animal is cooled. This mechanism compensates for the absence of sweating in these

animals. The palato-epiglottic gap seen in Man, is partly due to degeneration of soft palate and epiglottis as a result of relegation of sense of smell, and is partly a result of assumption of erect posture. Advent of orthograde posture has resulted in a gradual descent of larynx, soft palate and epiglottis in both ontogeny and phylogeny (Figs. 4, 5, 6). A minor part of this descent corresponding to that seen in Apes has been the result of assumption of erect posture and alterations of occipito-vertebral and pituitary angles. Main part of this descent in man has been contributed by recession of jaws and consequent backward displacement of tongue, resulting in a downward shift of larynx and epiglottis.

This separation of epiglottis from the soft palate, has converted the disadvantages of a poor sense of smell, into a boon to the mankind - a great advantage in phonation. This gap has permitted the use of both oropharynx and laryngo-pharynx, as a resonating column for speech. The importance of this, is amply illustrated by Brandie's observations on an Orang Utan, who could sing, only when his mouth was full of grapes thereby lowering the epiglottis and providing a resonating column.

From the above, it is evident that the faculty of mouth breathing is peculiar to man and provides us with an additional airway while suffering from common cold. Under normal circumstances, nasal breathing gets a preference over mouth breathing, on account of additional functions of filtering out coarser dust particles, and warming and moistening of inspired air.

CONCLUSIONS

1. Epiglottis is a mammalian character and is evolved primarily for purposes of olfactions.
2. Palato-epiglottic overlap is directly proportional to olfactory development of the animal.

3. Intrabuccal epiglottis of dog and jackal, provides an additional means of cooling the animal.

4. Palato-epiglottic gap in man, serves a useful function in phonation.

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A new technique of Peroral Endoscopy with special reference to Oesophagoscopy.*

BY

S. NAZRE IMAM, M.S.

An introductory probing into the history of endoscopy and types of instruments will not be out of place in order to finally press upon the slight but important change in the technique and to stress upon the fact how these small changes or modifications in different places and at different hands contribute to the progress of science and the art of its utilisation.

Peroral endoscopy deals with the technique of direct inspection of the air and food passages by means of an illuminated tubular instrument introduced through the mouth.

HISTORICAL SURVEY

Bozzini of Frankfort, in 1806, made the first known attempt at visualisation of the cavities and passages of the body. He designed an apparatus consisting of a divided tube, one half illuminated by a candle and the other half for the observer's eye. The ingenious appliance was condemned by the Vienna Medical Faculty as being no better than a toy and serving no useful purpose. But there is no doubt that it was the first serious attempt at endoscopy.

Fisher of Boston, in 1824, introduced a concave mirror and double convex lens but still employed a candle as the source of illumination. Siegles of Paris in 1826 and Avery of London in 1848 also had their own devices. But all these were the primitive types of endoscopes for the direct examination of urinary bladder, vagina or rectum and none of them appeared to have achieved practical success, and the pioneer of practical endoscopy

*Paper read at the Annual Conference of the Association of Otolaryngologists of India at New Delhi on February 1, 1958.

must be looked upon as Desormeux of Paris, who, in 1853, raised endoscopy to a recognised method of examination and was successful in observing the urethra and rectum.

Cruise of Dublin and Bevan of Guy's Hospital made further attempts but Kusmaul in 1868 made a report to the Scientific Faculty of Frieberg on the successful examination of the oesophagus, normal and abnormal. Undoubtedly he made the first direct oesophagoscopy by means of a straight rigid tube. He used sword-swallowers as subject and Desormeux's cystoscope for an instrument.

Morrel Mackenzie of England, in 1878, described his skeletal tube with handle, stem and tube and claimed to be able to see the upper part of oesophagus.

Kusmaul and Stoerk failed to publish their results and most of the credit was given to Mikulicz of Vienna combined with Leiter, the famous Vienna instrument maker.

Kirstein, in 1895, invented the head-lamp and Killian utilised this to produce the first proximally lighted oesophagoscope. It was elaborated by Kahler, Bruning and later by Hasslinger. Killian read a paper at the British Medical Association in 1902 and this stimulated interest in England.

Einhorn, in 1902, designed a distal lighting principle made by an auxilliary tube in the wall of the oesophagoscope. The modern Jackson oesophagoscope is designed from this instrument. Negus desired one with oblique illumination a short distance beyond the beak or tip.

ENDOSCOPIC INSTRUMENTS

There are 3 main types:—

- (i) Devised with proximal illumination as by workers like Brunings, Kahler and Hasdinger.
- (ii) Devised with distal illumination as by Chevalier Jackson.
- (iii) Devised with twin oblique illumination a short distance beyond the beak or tip as by V. E. Negus.

The third one combines the advantages of both (i) and (ii). Here in it (i) the proximal illumination is recommended for inspection of pharynx, larynx and oesophagus, and (ii) distal illumination is found most suitable for trachea and bronchi.

POSITIONS OF THE PATIENT

(i) Killian, Bruning and many other Continental Laryngologists passed the oesophagoscope with the patient in sitting position. The surgeon stood in front and above the patient, the instrument being introduced in the vertical position; the tongue was pulled out and the oesophagoscope passed. Now all the oesophagoscopies are done with the patient lying down.

The patient lies on a flat operating table with the head and part of the shoulders projecting sufficiently to allow half the scapulae to extend beyond the end of the table. This is known as Boyce's position.

According to Jackson's teaching a trained assistant sits on a high stool, resting his left foot on a stool 12-14 inches in height. He supports the weight of the patient's head with his left hand raising the occiput to a height of 10 cms. above the level of the table during the introduction of the laryngoscope or bronchoscope.

(ii) The Head-rest introduced by Hasslinger or Negus's modification of his pattern carries out the same duty with some efficiency and obviates the necessity for a specially trained assistant. The cervical spine is flexed and the occipito-atlantoid joint extended. The importance of the position of the head and neck has been stressed by Jackson.

(iii) Various positions of the head have been recommended for direct laryngoscopy by anaesthetists but it would seem clear that the correct posture should ensure that the 3 axes of the mouth, pharynx, and larynx should coincide. With a normal patient lying flat, these axes are not in the same plane. Flexion of the head on a fine pillow straightens out the cervical spine and makes the axes of the pharynx and the larynx coincide.

The chin is now pulled upwards causing extension of the head at the atlanto-occipital and upper cervical joints. The axes should now be coincident and the blade of the laryngoscope is made to lift up the tongue and epiglottis thus exposing the vocal cords.

(iv) Now the main idea of this paper is to attract the attention of the experts of laryngology and broncho-oesophagology towards the less complicated position of the head of the patient and more comfortable process of introduction of instruments by the surgeons.

ROLE OF THE ASSISTANT

I am sorry to advocate discarding headrest or doing away with the services of an assistant but this method of passing the endoscope is not accompanied by the catastrophies of the adjustments of the head which unluckily goes much in the tools or hands other than those of the surgeon himself.

This method reduces the manpower as regards the assistant or assistants, for in a teaching institution usually the assistant is a house surgeon, who keeps on changing at the end of every six months, that is, the place is left vacant for a new entrant just at the time when the old House Surgeon has practised and become experienced how to hold the head and adjust it according to the commands of the surgeon.

Moreover in complicated cases, when the time is prolonged, one assistant definitely gets tired and another assistant has to take his place. This again unnecessarily creates a disturbance and a short-tempered surgeon is apt to get irritated which attitude is again added complication!

ROLE OF THE HEADREST

After hearing all this one may remark otherwise and still advocate the use of the headrest, but this again is a superfluous device and it is not so useful as it is luxurious and fashionable and unwanted armamentarium. Instruments or instrumental devices must not be the masters of the show; skill of the surgeon

should reign supreme and all the rest should act as auxilliary forces to come into force if really indispensable, and I do not think the handrest is so!

The technique that I request you to adopt seems to be a deviation from the usual course but is very helpful as regards simplicity, purposefulness and result with special reference to oesophagoscopy, whether for diagnosis or for removal of foreign bodies or for dilation. It combines the skill of an anaesthetist and the delicacy of a laryngologist.

The patient lies on a table with his head at the brim of the head-end of the table. The surgeon stands at the head-end, fixes the head by holding the forehead of the patient with his own right hand, takes the endoscope with the left hand in about a vertical position. The beak is introduced into the mouth slightly obliquely until the uvula is visualised and then passed gently forward; simultaneously the endoscope is dropped horizontally till the epiglottis is seen and hooked, when the real time for judgment comes. The posteriorly lying laryngeal cartilages would tell the way to the oesophageal lumen. At this moment the fingers on the forehead can be made free and with the same fingers on the teeth protected with a piece of gauze the thumb can be placed on the undersurface of the oesophagoscope to help it glide on inside the oesophagus. The beak of the oesophagus runs behind the laryngeal cartilages, presses upon the foot-switch of cricopharyngeal sphincter and follows the oesophagus, as far as is needed. The pressure upon the mediastinal organs can be overcome and avoided with caution and gentleness.

The idea of this technique occurred to my mind when I found myself and some of the anaesthetists slipping the endotracheal tube into the oesophagus instead of into the trachea. In fact it is the net result of this popular mistake committed knowingly for the purpose of oesophagoscopy in a more comfortable and less complicated position not only of the patient but also of the surgeon.

It is a suggestion towards modification or improvement or change in the technique of peroral endoscopy specially helpful in removing the foreign bodies from the oesophagus but may well be utilised for other procedures of peroral endoscopy and every surgeon is likely to find it a promising trial keeping one dictum in mind that instrumental or mechanical device is only an aid to manual dexterity and *vice versa*.

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Monilial infection of the Tonsils and Pharynx*

BY

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Etiological relationship between the increasing frequency of fungi infection and the use of antibiotics have lately been the subject of many discussions.

Thrush is the habitual, characteristic lesion due to infection of the oral mucosa by *Candida Albicans*. It appears like flat white sopts, slightly adherent, but easily separable from the buccal mucosa—more common in children and weakened cachectic subjects. Invasion of the deeper tissues by these yeast like micro-organism produces localised and persistent lesions of the mouth, quite different to those of the acute and superficial form of the disease. Use of antibiotics has been attributed to produce alteration of bacterial flora in oral and gastro-intestinal tract etc. But I have not been able to find out reference in the literature, about Monilial infection causing complete destruction of the tonsils and soft palate and extending deeply into pharyngeal muscles from naso-pharynx to laryngopharynx. Because of the rarity, I present this unusual case for what it is worth.

Noreswar Raison, H. M. 30 years, cultivator, plains tribal (Miri) Vill: Sagunpara Gaon, Janjimukh, Sibsagar (Assam), was referred to Assam Medical College Hospital from Jorhat Civil Hospital.

The patient reported to E. N. T. department of Assam Medical College Hospital on 1—9—58 with the complains of:
 (i) Difficulty in taking food and nasal regurgitation 6 months.
 (ii) Pain in the throat—6 months, pain throat preceded difficulty in swallowing.

On examination submandibular glands were enlarged.

*Read in Annual Conference of the Association of Otolaryngologists of India at Gwalior, 11th January, 1959.

A sloughing ulcerated area occupied the tonsillar regions and pillars and soft palate, destroying the part of the uvula and soft palate. Slough covered the mucous membrane of the post wall of the oropharynx also and was spreading towards nasopharynx and laryngopharynx.

The lesion looked like that of syphilitic ulcer and repeated investigations in that direction failed to reveal any positive evidence for syphilis. Wasserman and Kahn reactions even after provocative medication was negative.

Investigations for tuberculosis and leprosy were all negative. Blood examination showed slight leucosytosis 9,600 and E. S. R. 90 m.m.

As the patient's condition was deteriorating on 22—9—58.

It was noticed now that he gets irregular temperature. On further enquiry, he said that for last 4 months he was getting fever from time to time, but he did not feel it so much.

His liver was enlarged 2 fingers below costal margin. Investigations for Malaria was negative. Spleen was not enlarged and Hb/ was 60%. In the meantime the biopsy from the ulcer showed evidence of chronic inflammation. No evidence of malignancy noted.

Under the circumstances, it was decided to give Penicillin and Bismuth, as is given for syphilitic patients. In spite of penicillin and bismuth, the local lesion was not improving and the irregular temperature continued.

In the meantime search was being made to find out the cause of the lesion. After repeated smear examinations from the lesions for Vincents and spirochaetes, all were negative. Penicillin was stopped after 10 injections of 5 lacs. Urine culture ultimately showed *B. Coli* infection and hence Streptomycin was started from 9—10—58 and continued for eight days and temperature gradually became normal. It remained normal for 4 days and started shooting up again.

Culture report and swab from the lesion in the throat showed on 9th October, growth of *Candida Albicans*. The temperature went up to 103-104 on 20th, 21st October Nivaquine was given, which lowered the temperature, but it went on irregularly upto 100 F also, or sometime even more. Re-examination now of the biopsy material showed *Candida Albicans* in the tissue.

During this period the local lesion continued increasing and on 30-9-58 he had bleeding which stopped after usual measures. The destructive process has extended to whole of tonsils and pharyngeal wall and they were separating off and on 12-10-58 whole of left tonsil has disappeared and a deep penetrating cavity appeared on the pharyngeal wall on the left side. Pain and difficulty in swallowing was persisting and usual measures for relief of pain were being taken, with some relief. Irgapyrine gave the lowest relief.

When report of *Candida Albicans* came, we searched for some suitable drug for this and started insufflation locally of Mycostatin from 16-10-58 to 27-10-58.

Patient was still having irregular temperature, Urine examination again showed *B. Coli* on 24-10-58.

Examination of blood, urine etc., for presence of *Monilia* was negative. Examination of lungs by X-ray for *Moniliasis* was negative. As antibiotics were not advisable due to *Moniliasis*-Elkosin was given from 25-10-58.

In the meantime the local lesions has shown some sign of clearing of the sloughs, but not quite much. So along with Mycostatin spray, Silvernitrate 2% was again being applied.

After starting of Elkosin on 25th; on 27th temperature came to normal, but started again, on 29th going up. Simultaneously with this he complained of more pain, in the throat and the head region and was unable to take solid food. General health was going down inspite of medication with Vitamins etc. Local insufflation with Mycostatin tablet which was discontinued

for non-availability, was started again from 12-11-58. As oral tablets were not available so long vaginal tablets were crushed and sprayed.

By 8-11-58 the Hb. which was 60% on admission, came down to 40%. From 12-11-58 Mycostatin oral tablets became available and he was given both systemically and locally. After this from 3rd day temperature went down and touched normal, but from 7th day again it started shooting up irregularly. Mycostatin was continued orally till 11th day when it become non-available again. On 23-11-58 he bled severely again and it was noticed that the right tonsil now has completely disappeared in its upper part and it was bleeding from that side. It was controlled but slight oozing went on for 3 days and it would bleed whenever one tried to touch. By 29-11-58 another area of separation of sloughing ulcer was seen in post pharyngeal wall, and the patient complained of increasing difficulty in swallowing. As temperature was continuing Sulphamezathine and Enteroquinol was started on 27-11-58. After 4 days temperature came to normal, except for one day on 3-12-58 and remained so till 6-12-58, when it started going up and down again inspite of these medication and by 12-12-58 Hb. came down to 30% inspite of blood transfusion on 3-12-58. Enteroquinol was stopped on 8-12-58 and Sulphamezathine on 10th, when temperature had come to normal again.

On 16th December, whole of the soft palate was destroyed and ulceration extended to hard palate upto 2nd molar teeth region and downwards upto pharyngo epiglottic fold; epiglottic was oedematous and the right tonsil also has completely disappeared, but the ulceration on the left half appeared healing in its upper part where it formed a cavity.

Mycostatin was started again from 12th December and Mysteclin V from 15th. The temperature was settling down reaching only up 99 F, a second blood transfusion was given as Hb came to 20%. Sternal puncture done on 16th December did not show any abnormality.

On 20-12-58 at 9 a.m. he had severe bout of bleeding and with great difficulty it was controlled. Blood was seen coming from the left tonsillar fossa. Whole of the mucous membrane of pharyngeal wall sloughed off and came away as a sheet. Bleeding was controlled with pressure. But at 12-30 p.m. he suddenly again bled severely and died before anything further could be done.

DISCUSSIONS - MYCOLOGY

Monilia Albicans, or as it is known at the present time *Candida Albicans*, is a fungus known for a great many years (Robins, 1833), which was demonstrated by Langenbeck in 1839 to be present in thrush which is the most frequent and best studied clinical entity produced by this fungus. Several species akin to *Candida Albicans* have been described, though they have little pathogenic power. It is an oval organism which in the tissues and exudates shows pseudomyceli and typical blastpores.

It is amply distributed in nature (dung, vegetable foods, dusts, powders etc.), and is usual inhabitant of the gastrointestinal tract (mouth, stools), and sometimes of the skin of human beings. The frequency with which it has been found in the oral cavity of normal persons varies between 5 and 35 per cent, though it is found somewhat more frequently in the stools than in the oral cavity. Therefore, the findings of the fungus in these places do not authorise the discoverer to consider it as responsible for the lesion where it was found. It has been seen on the skin; but never in the urine or other viscera or normal subjects.

The fungus may be demonstrated by the fresh examination of lesions and exudates or better still by colouring technics (especially periodic acid) and grows easily in the usual media for fungi (Saboureaud's), or even more rapidly in special media (Cornmeal agar, etc.). The criterion of species should be based, more than on fermentative media (insufficient for classification of same), on the morphological characteristics, and in experimental inoculation in mice and rabbits. The only species which in cornmeal and agar produces clamido spores is *Candia Albicans*. It has also been said that this last is the only pathogenous species



Fig. 1.

R. 421/58—The patient.



Fig. 2.

R. 330/58—The lesion on the oesopharyngeal region at the middle of the growth.



Fig. 3.

R. 618/58—The lesion on the oesopharyngeal region just before death.



Fig. 4. F. Q. (A) 110/58
Microphotograph of monilia
from Tissue section.

Fig. 4 (B) 111/58
Microphotograph of monilia
from Tissue section.

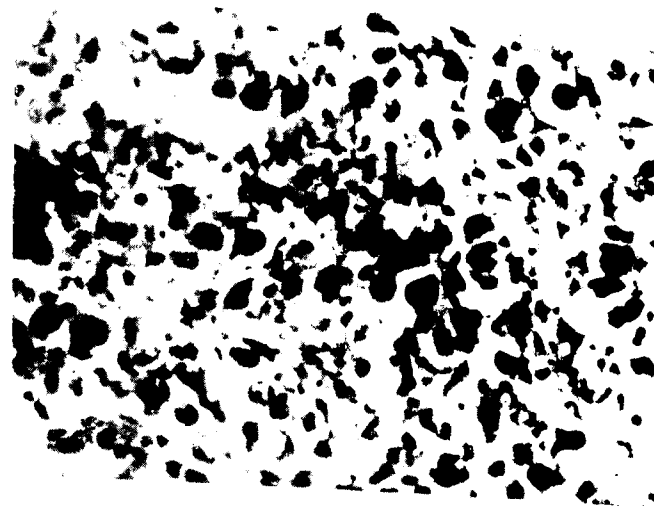


Fig. 5. R. 218/58
Photograph of culture plate.

for man, though other harmful species have been found occasionally, and several cases of Moniliasis have been described in which *C. tropicalis*, *C. Pseudotropicalis*, *C. parakrusei* or *C. Guillermondi* have been isolated.

Clinical picture produced by *Candida Albicans*.

The disorders produced by *Monilia* have been classified in superficial and systemic, though it is better to denominate them localized and systemic or generalized. In the (mouth gastrointestinal tract, anorectal region, skin, urinary tract, bronchi), whilst in the systemic form the blood stream is invaded and a vertiable septicemia or septicopyemia is produced, with secondary localizations in diverse viscera (liver, lungs, brain, etc.) This last form is always fatal.

SYSTEMIC FORM

The systemic is rare, though, since the widespread use of antibiotics it has become much more frequent. Recently, two joint papers have been published, in which a series of cases are reported; but in their great majority, these publications refer to isolated cases.

The clinical picture is hazy and difficult because, generally, it appears in the course of another infectious process in subjects already greatly weakened and submitted to various treatments, and the symptoms of Moniliasis emerge through the complex picture of another pathological process. Digestive symptoms may occur (diarrhoea, vomiting, mucous and blood in the stools); circulatory (endocarditis); meningeal or encephalic. Sometimes though not always hepatosplenomegally may be found. Pyrexia is a constant symptom.

A case is presented which gave great difficulty in diagnosis and baffled all possible means of treatment available.

Monilial infection causing such devastating ulceration of tonsils, palate and pharyngeal region is very rare. Usual lesion is superficial involving the mucous membrane of the oral cavity.

However submucous thrush have been described by Waisman M. in 1955 who described eight of his personal cases as submucous thrush of the buccal cavity.

All available treatment, *i.e.* Silver nitrate, gentian violet, enteroquinol and ultimately the latest drugs Mycostatin Mysteclin V. were of no avail. Although it was noticed with these drugs the wound was healing and temporarily settling down, when secondary haemorrhage took the patient away.

I shall be thankful if our esteemed friends can throw more light in this subject.

PHOTOGRAPH OF

- | | |
|----------------------|-----------------------|
| 1. Patient. | 3. Fungus slide. |
| 2. Patient's lesion. | 4. Temperature chart. |

SUMMARY

An unusual case of Monilial infection of the tonsils, pharynx and palate is described and its rarity pointed out.

Mycology has been discussed in short.

I want to express my thanks to the A. M. C., Pathology department for their interest in the subject and lending me the photographs of Monilia found in the case and to the assistants of the E.N.T. department for their help.

I express my thanks to the Principal, Assam Medical College for permission to publish.

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11th Annual Conference of the Association of Oto-Laryngologists of India, Gwalior, 1959



Association Notes

The Eleventh Annual Conference of the Otolaryngologists of India was held at Gwalior, the historic city in Madhya Pradesh. About 55 delegates attended the Conference which took place between 9th and 12th January 1959. This Conference was unique in having amongst us Dr. Samuel Rosen, an Honorary Member of our Association, to deliver the first Joshi Memorial Lecture. The Reception Committee with Dr. B. N. B. Rao as Chairman and Dr. C. S. Anand as the Organising Secretary, along with all the other members of the G. R. Medical College had made excellent arrangements to make the Conference a success. The Inaugural Address delivered by Rani Sahiba Rajwade was very much appreciated by all the delegates and the guests. This was followed by the Welcome Address by Professor B. N. B. Rao, and the Presidential Address by our President Dr. P. N. Sinha.

The Scientific Session was a very good success, and the first Dr. Joshi Memorial Lecture delivered by Dr. Rosen was very interesting and instructive.

The President's Dinner, the buffet lunch by the Reception Committee and the Dinners given by Messrs. J. B. Mangaram and by Sri D. P. Mandelia of J. C. Mills Limited, were very much enjoyed by all the delegates. The Volunteers played an excellent part in looking after the delegates and their ladies. At the General Body meeting, on Monday, the 12th morning, Dr. R. N. Misra was unanimously elected as our new President. It was also decided in the General Body meeting that the next venue of the Conference will be at Baroda.

This Conference was further made interesting by the operative demonstrations given by Drs. Samuel Rosen, Dr. Cooper, Dr. DeSa and others.

In conclusion I take the opportunity of thanking and congratulating Dr. C. S. Anand, the Organising Secretary, the Chairman and the Members of the Reception Committee for the excellent arrangements and the very nice time they gave us.

V. S. SUBRAMANIAN,
Editor.

WELCOME TO THE CONFERENCE

Speech of Dr. B. N. B. RAO, Chairman of Reception Committee.

*Rani Sahiba Dr. Lakshmibai Rajwade, Distinguished Otolaryngologists of India.
Ladies and Gentlemen!*

On behalf of the Reception Committee, and of the medical profession of Gwalior, I wish you a cordial welcome to our midst this morning. It is customary for the hosts to enumerate the beauty of the town and the greatness of the place and our efforts to make you comfortable, and hoping that you will enjoy your stay in our midst. I shall only say that we have striven to make you comfortable, and am painfully aware of our many shortcomings. I hope you will condone them in your magnanimity.

To those of you who are interested in History and Archaeology, Gwalior is a fascinating town. This town of antiquity is resplendent with relics of kings and wars dynasties that had their hour of glory, intrigues, bravery, cowardice, love, hate, murder, chivalry, all in a panorama.

Teli ka Mandir and the various statues on the Fort tell of bygone splendour of religion dating back nearly 15 centuries. Man Mandir brings to memory the glory of the great Moghul period. The memorial to Rani of Jhansi stirs up ones pride. Unhonoured till late, almost unseen, but certainly not unsung is the burial place of that doyen of musicians—Tansen. To those who are interested in this adventure of history, I can only suggest that you visit them, see and feel the glory that was Gwalior.

Coming to recent times we have factories, industries both large scale and cottage. Having come from long distances and at great inconvenience and separated from your dear ones, I can suggest that you can do no worse than take a few beautiful Chanderi saris, a pride of our handloom industry, not to speak of papier mache dolls and so on. To assist you in your exploration of history and industry, we will only be too happy to help you.

My personal association with this august body of Otolaryngologists is of nearly a decade and a half. I recall the days when in Hyderabad, the Association of Surgeons of India and the surgeons of your speciality used to meet in a single conference. For reasons best known to you, and also as a natural sequence, your body developed into an adult stature, and has now personality all its own. It is as it should be, though I do feel occasionally a pang at this separation. Absence makes the heart grow fonder, and in all humility, I submit to you if it would not be to the mutual benefit of the general surgeon and of the specialist bodies to meet once in a while at a common centre. I respectfully submit this for your serious consideration.

I take this opportunity, to our brethern who have come from foreign countries, to welcome them in the warm hope that not only will we exchange scientific ideas but also be the ambassadors of goodwill. I request that they take back with them our warmest feelings and continued desire for friendship.

To the ladies who have braved to accompany their menfolk. I make a special plea that there are many places of interest both for the eye and for the purse in our busy bazaars. We shall endeavour to keep them gainfully busy while the professional sessions are keeping their dear ones engaged.

In closing may I request that in your spirit of forgiveness, to carry happy memories of Gwalior, and may that memory of your visit to this part of our country linger long. Thank you.

THANKS

The Reception Committee takes this opportunity to extend its sincere thanks to all those, who have extended their full support to make this conference a success. Amongst them the following deserve a special mention.

- (1) The Principal and the Staff of G. R. Medical College, Gwalior.
- (2) The Supdt. and Staff of J. A. Group of Hospitals, Gwalior.
- (3) H. H. The Maharaja Scindia.
- (4) J. C. Mills, Gwalior.
- (5) M/s. J. B. Mangharam & Co., Gwalior.
- (6) The Information & Publicity Deptt., M. P. Gwalior.
- (7) M/s. The Artists Combine Gwalior.
- (8) The Greater Gwalior Druggists & Chemists Association, Gwalior.

We are also grateful to Pharmaceutical concerns for their patronage.

We also thank most heartily Dr. and Mrs. Rosen for the trouble they have taken to come to this conference from New York. Thanks are also due to Mrs. J. V. DeSa for doing audiometry on some of our cases.

Lastly we are obliged to M/s. The Chandrodya Press, Gwalior for the excellent printing of this Souvenir well in time.

Congratulations

We congratulate Dr. Jeo. V. DeSa, M.S., D.L.O., (Lond.) and Dr. M. V. R. Acharyulu, F.I.C.S. for getting F.A.C.S., this year.

C. S. ANAND,
Organising Secretary.

11th Annual Conference of Otolaryngologists of India
Gwalior, January 10, 1959.



INAUGURAL ADDRESS

By RANI SAHIBA Dr. LAXMI BAI, RAJWADE

Dr. Sinha, Delegates, Ladies and Gentlemen,

I feel greatly honoured that I have been called upon to inaugurate this conference, which is the 11th session of the annual Conference of the Association of the Oto-laryngologists of India. Why I have been chosen to do it. But I assure you that, for my part, my sense of being honoured by this invitation is no mere platform sentiment. I have a reason for feeling rather flattered. There was a time—and in this company it seems not so long ago to me—when I was myself a practitioner of the science and art of which you are all devotees—most of you such successful—such distinguished ones—masters. But I was a rather humble member of this great profession. And that is why I feel so privileged to be addressing a gathering of today's experts and leaders in that profession. I said I was a humble member of your profession. Perhaps, some of you will doubt whether a woman doctor ever feels humble anywhere! And to tell you the truth, recalling my days as those of that rare bird of those times—a woman doctor, I remember it was very difficult to feel humble. Today, the woman doctor is a familiar figure. But, as I said, in my day the species was rare and, just as rare birds are much admired by bird-watchers but despised by the bird community, so we were somewhat glamourized by society but despised and a little feared by the profession. However, I must say that this great profession which, along with teaching, is perhaps the most dedicated and high-minded and hard-worked of the professions, has room for every kind of practitioner and it

very soon forgot all about men doctors and women doctors in the tremendous advances which the science and practice of medicine had already begun to make in the country. Remembering all this as I do this morning, I cannot but feel grateful for this opportunity which I always welcome to be with members of the medical profession.

But, perhaps, when the organizers of this conference, led by Dr. Rao and Dr. Anand, asked me to be here today they were not thinking of my now rather remote past as a medical practitioner. They were probably more interested in a layman who has dabbled in various public activities and interests but who still retained something of her medical background. And I have a suspicion that they were also probably right in seeking someone to address them who was as far from being a specialist as anybody could be. Yours is a conference of specialists: And, I presume you will soon settle down to your specialist problems here. But I think it is right that before you do that someone—perhaps, someone like me—should remind you—even upset you by reminding you—that, in medicine, even the most abstruse research, even the innermost sanctum of the specialist's ivory tower, is vitally concerned with the common life of man—with the joys and sorrows, the hope and happiness, the present and the future of human beings and human communities. The physicist, the chemist, even the biologist and other scientists have begun to be somewhat irked—to be somewhat uneasy and suspicious about the application of science to life. They see the terrible prospects of an indiscriminate application of scientific truths to human life and its problems. And they have begun to claim a special immunity, a kind of extra territorial jurisdiction in the middle of man's world by which they can escape the pressure of contemporary problems of human life and happiness. Their cry is: 'Leave us alone'. That attitude may be right or it may be wrong. But you, members of the medical profession, can never claim any such immunity or extra territorial right. Your science and your practice has no meaning if it is not constantly applied to life. You cannot be left alone. Your research, your specialists activity, must have, sooner or later, an application to human life.

That is why all your research programmes must, I think, be planned primarily on the basis of the needs of contemporary society—even the needs of the region in which you are working. The pure scientist's and the mathematician's pursuit of abstract truth is all very nice. For you there is no such thing as abstract truth. Your truths are too inextricably entangled with human well-being and happiness and hope to be abstract. And although this thought cannot either help or hinder the actual processes of research, it should, I think, provide a necessary background to all research programmes and all specialist conferences and discussions. We hear people saying that there is too much specialization in all the sciences, and that it is becoming increasingly difficult for anyone to see the wood for the trees. On the other

hand, specialization is the very foundation of all research. The two words are almost synonymous. How then can specialization stop or even be checked? My answer is that it can only be done—not by organizing some novel method or by artificially limiting specialization but by conditioning at the specialist—by training him, or orientating him in such a way that he does not become totally unconscious of the need to relate his research to real social situations or human needs.

For instance, the area of the human body with which you are primarily concerned is, perhaps, socially and humanistically one of the most vital areas of man's physical well-being. Speech and hearing are the very foundation of civilization. Man as a social creature, man as a creative being, has risen only because of speech and communication. Any research in your special field, therefore, which apart from its application to human health cannot be related ultimately to this larger aspect must be condemned as abstract: and therefore relegated to the domain of the pure sciences. This, I think, should be the basic attitude or mental background of a specialist in medical science. Of course, in actual research the specialist must rigorously cultivate what is called the scientific attitude. That goes without saying. It is one thing to be conscious of the human implications of your research. It is quite another to vitiate that research by unscientific methods or attitudes.

In this country there is no lack of problems—human problems—which medical research can tackle. We are told that there are about 3,00,000 people in this country who are born deaf. There is a far larger number who become deaf or partially deaf as a result of disorders in the aural region. This single fact involves gigantic problems of prevention, treatment, cure and rehabilitation: and each problem needs research and experimentation in countless directions. I quite understand that in India what is now needed in this or other directions is not so much research, as money, and vigorous effort and imaginative organization, which is hardly a job for specialists. That of course, is true. But it is also true that so often in the matter of prevention or treatment, a cheap remedy or easily available device can work wonders where complicated and expensive social welfare organization fails disastrously. You will forgive me if I draw an analogy from another and far more vital problem which faces us in India. Everybody from the Central Government downwards is anxious about family-planning. We are given harrowing pictures of the future in which our population has disastrously outrun our food supply. But what do we do about it? We organize family-planning boards, we make propaganda—we ask doctors to help. I always feel that in India these feeble gestures become rather pitifully futile and tragic on account of the vastness of the numbers involved and their extreme ignorance poverty and apathy. But suppose tomorrow doctors or others either discover an extremely cheap preventive which the common woman and man in India can understand, or invent an equally cheap, simple and easy operation and make it available on a universal scale, why, then family planning will become suddenly and

miraculously an everyday affair, a common feature of life in this country. So, in India, it is from this point of view that research is so vital and necessary. There is this constant necessity to find our own solutions and remedies *i.e.* solutions and remedies and devices which will fit Indian conditions and will be workable among the common people in India. In your special field, for instance the necessity to find cheap and easily available audiometric aids or even common preventives for common disorders is obvious. Once such remedies or devices are discovered or invented I am sure the present Government will do everything in its power to subsidize their manufacture and marketing.

As a layman let me assure you that the tremendous difficulty of this kind of research—which is not quite like the research you do in advanced countries—is fully realized by all thinking people in India. In fact that realization so often leads to despair or a sense of defeatism among some of us. But, despite these gigantic difficulties, efforts are being made all over this country to solve problems and find remedies. Medical colleges, research institutions, clinics, laboratories, field units, central and state organizations, welfare activities are springing up. And although much of this effort is sometimes rather hollow and wasteful—and it is very depressing to see this—yet there are things being done—honest and useful and of lasting value. If your conference and other conferences all over the country add their quotas to that general effort, they will have justified the energy, time and money spent in organizing them.

Then there is the need in your field as in other fields apart from research specialization, of training personnel for rehabilitation work in institutions for the deaf and the mute. I know it is not much use our saying that Government should do this and Government should do that. We have all seen in other countries Government effort being ably seconded by private agencies. I do not know if your conference has any section which deals with this aspect of rehabilitation of defective people. But, I feel that specialists should be able to suggest both to the Government and to the public what concrete steps can be taken in the matter of training and rehabilitation and how the co-operation of the experts themselves can be secured.

I hope, Ladies and Gentlemen, I have not trespassed too much on either your province as experts or your time. As I said, I was very glad indeed to accept the invitation to be here this morning because it gave me an opportunity to associate with the members of a great fraternity. I only hope that in what I have said I have not presumed too much on my own former connection with the profession nor tried your patience unduly. And now with these words therefore, I have great pleasure in inaugurating this the 11th session of the All-India Otolaryngologists Conference. I wish the conference a very successful session. Thank you.

PRESIDENTIAL ADDRESS*

By Dr. P. N. SINHA, M.B.B.S., D.L.O., (Lond.), D.O.M.S. (Lond.)
Professor of Ophthalmology and Otorhinolaryngology, P. W. Medical College, Patna.

Ladies and Gentlemen,

I consider it a personal proud privilege to address this Eleventh Annual Conference of the Association of Otolaryngologists of India. This is a great honour and an index of the confidence bestowed upon me by my respected colleagues and friends. Its realization is a bit staggering as to how much shall I prove worthy of it, but I shall try my best to reach your expectations. I am encouraged to do so, counting on the active co-operation of all my colleagues which I am sure will come in ample measure.

I recall the day when a few of us first met in 1947 at Bombay under the inspiring guidance of Late Dr. Gandhi and resolved to form the association of Otolaryngologists of India. The same body during the 10 years has taken up gigantic shape.

I am fortunate that I have got the opportunity to preside over the deliberation of this association in this historic city of Gwalior. This charming city of yours has been in the lime light since Mogal period and is advancing day to day in all its glory.

When I recall the venues and proceedings of the previous meetings that we had; the theme had been one of our aspirations and the other of our handicaps and short comings. We have thought of the ways to circumvent these and how best to achieve co-operation from Government and other agencies in this direction. After ten years I think, to-day it is the time to look around and make an overall assessment of our achievements and progress. It is the achievements in face of odds that I would like to present before my friends. There has been so much talk about E.N.T. as a vanishing speciality that the young practitioner begins to wonder how much it is worthwhile to undertake this speciality as his career.

A young graduate after passing begins to select his subject about housemanship. I have seen in my place that E.N.T. and Eye are their last choice. Hence many a time they have to select this subject very reluctantly. They are advised by their friends about this vanishing speciality and thus they are scared away.

(i) *Recalling of the past*:—Let us begin by recalling how less than 40 years ago the only practice in the field of E.N.T. was removal of Tonsil

*Delivered at The Eleventh Annual Conference of the Association of Otolaryngologists of India (1959), Gwalior, the 10th January, 1959.

and occasional draining of an infected mastoid and doing Tracheotomy for Diphtheria.

(ii) *Advent of new instruments*:—Then came the discovery of endoscopes—which at first were confined to removal of Foreign Body accidentally swallowed. These endoscopes were later improved and perfected so that now they form an every day procedure in other cases apart for Foreign Body *i.e.*, diagnostic and prognostic value in lung Cancer and Lung Tuberculosis. The diagnosis and treatment of Oesophageal cancer is also largely dependent on repeated endoscopic examination. In most cases of cancer of Larynx a preliminary Direct Laryngoscopy is generally done with a view to determine the site and extent of the disease and collection of specimen for Biopsy.

(iii) *Nose and Sinus Surgery*:—The trend in this field in the early years of the speciality was to do extensive surgery. But as years rolled by, it became more and more clear that the surgery was largely detrimental to nasal physiology and lots of patients suffer as result of permanent disturbance consequent on surgery. This brought some disrepute to the speciality.

To-day, there is general tendency to be conservative in these diseases, more acting as a Rhino Physician rather than a Rhino Surgeon. This has resulted in less surgery on nose and sinuses. The commonest procedures being S.M.R.; A. P. and Caldwell Luc Operation etc.

More significant development in the field of Rhinology has been the scope and practice in allergic rhinitis and sinusitis vis-a-vis Asthma. There has been again a trend towards conservation in treatment of nasal allergies and to regard them as a local manifestation of systemic disturbance rather than to attempt to eradicate nasal disease by local measures only. Similar understanding has come to us in case of chronic sinusitis associated with Bronchiectasis. The dual infection being more reciprocal to one another and has to be treated simultaneously rather than as cause and effect. It will be of much value to the Rhinologist to co-operate with the chest physician in management of these cases and *vice-versa*.

(iv) *Otology*—some of the greatest advances have been in the field of Otology. These include—Stapes Mobilisation, Fenestration operation for Otosclerosis, Tympanoplasty of various types and surgery for Meniere's disease and Facial nerve surgery. Instead of using the eustachian catheter for any and every kind of deafness we have a much wider field of understanding and practice which have been revealed lately. The recent advances are so stimulating and pregnant with further revelations that they should be enough to captivate any young man to attract him to the speciality. There has been growing references to the external ear and the Tympanic membrane

as the 'fundus' of the ear (reminding one of the fundus of the eye) in which much can be read about damage sustained and treatment indicated. This understanding is largely connected with the technique of tympanoplasty. The progress and activities in this field has been so vigorous that the E. N. T. specialist to-day is becoming more an Otologist than anything else.

These advances have one driving force and that is preservation of function with eradication of disease. It has converted, what used to be an eradication operation, on the middle ear cleft into a plastic operation. This has largely been possible from :—

1. better knowledge of surgical anatomy and physiology ;
2. improved techniques of anaesthesia,
3. use of proper illumination and magnification ;
4. to prolonged and arduous training that the present day Otologist takes on himself before embarking on these very specialized procedures.

In our country for obvious reasons the practise of this type of surgery has handicaps. But thanks to the untiring zeal and enthusiasm of my colleagues, more and more centres are now doing the kind of surgery indicated above and with experience perfection is coming through with better results. I feel confident that before long we shall be abreast with any country in the world. I am sure the hope of improvement and restoration of useful hearing to the deaf is prize that will continue to inspire us. The benefits that will accrue cannot be described in words.

(v) *Throat* :—The questions of tonsil and adenoids (briefly referred to as T. and A.) whether they should be left behind or removed by separation has been debated for a long time. Although T. and A. operation form one of the commonest operation in the whole field of surgery—it is significant that the indications for operations have been now better understood than ever before. Not so long ago Tonsils were blamed for any kind of sore throat, and operations were performed. Many of these cases continued to have a sore throat after the operations as the real source of troubles in the hidden paranasal sinuses was missed. This kind of cases are now more carefully screened by most trained specialists before advising any operative treatment of tonsils. In children these operations of T. and A. have more than one beneficial effect. Apart from removal of a septic focus which was perhaps causing affection and damage to the ear, it enables the resistance of the children to build up. In carefully selected groups it is gratifying to note how the patients improve in general health, eat better and puts on weight. The generally good standard of health of boys and girls in western countries may perhaps be partly attributed to the careful screening of their septic tonsils

and adenoids when they enter school about the age of 5 years. Nearly 50% of them are referred to specialist and have their tonsil and adenoids operated on advice. It will be worthwhile for us to reorganize the check up of our children at school in a more realistic manner than existing at present. At many places school medical examination is perfunctory and worse than useless. I would like to make an appeal with each member of our Association to get in touch with their local education authorities and to organize some sort of check upon the ear, nose and throat, apart from that of eye and other systems of the school pupils particularly those between the ages of five to ten years. This apart from helping to detect and treat an otherwise overlooked septic focus may prevent ear infections in future with resultant affection of hearing and deafness. It may also prevent some cases of Lower Respiratory. (LRT) infections e.g. Bronchitis, Bronchiectasis, Asthma etc. that follow on longstanding upper Respiratory infections (URT). I may also take this opportunity to impress on my colleagues a vital fact which is often over shadowed and missed. It is this, that a vast majority of children in their early years (say between 5 to 10) suffer more frequently from URT infections which keep on recurring than any other single illness. In fact, children of this group may form as much as half the cases attending any Paediatric and E. N. T. Out patient. Their infection may manifest as ordinary cold with Rhinitis, Rhinopharyngitis, sinusitis or Adenoiditis with or without ear infection or tonsillitis etc. So that we the Otolaryngologists, have to act at least as half paediatrician. As most of you will be aware paediatric laryngology has come to stay as a separate speciality in certain institutions in U. S. A. and U. K. This beckons to use that whereas in our country we can't afford to have some such superspecialization we should endeavour that the services of an Otolaryngologist be freely available to all Paediatric departments in the country. A collaboration between these two specialities, I feel will be helpful in national health reconstruction programme.

(vi) *Cancer in Otolaryngology* :—All of us are sorefully conscious of the common incidence of cancer in oral cavity, oropharynx and larynx. For long and even to-day a large number of these patients go undetected in the early stages until they are well advanced. It falls to our lot as specialists, and as teachers of the undergraduate in our speciality to generate that vital awareness among our students and future medical practitioner to be on look out for early signs and symptoms. All the book descriptions of the various cancer are of such advanced stage that diagnosis when made on them is much too useless for cure of the disease. I would like to emphasize that in our teaching and in our contacts with G. P. (such as in refresher course lectures) we would talk chiefly and predominantly of the early signs and symptoms of cancer in various sites. That is where we can best achieve result which we can't do otherwise either by surgery or radiotherapy or both. Most of you who have either facilities of administering radiotherapy or have skill and

experiences of performing surgery on the comparatively advanced cases of cancer met with in our country, will, I hope agree with me that the final results are rather depressing. But the disease is common and we have to act to its challenge. So once again I must appeal with all force at my command that let all of us be on the look out and diagnose cases of cancer early. There has been much advances in treatment in this field both by surgery and or by Radiotherapy but to achieve good results we must start treating, while the disease is still curable, and not when it is incurable.

Having told you our achievements now I will narrate to you some of our demands which we have craved time after time from this platform.

A. Teaching

(a) *Under-graduate* :—Our friends who make law (curriculum) just like our legislatures think that 6 lectures is enough for an under graduate to have working knowledge of E. N. T. In wards 15 days is thought to be enough to have working knowledge of this subject. E. N. T. is not a subject for examination in Final M.B.B.S. Where there is no examination in a subject, students do not read, students only come with the idea of sight seeing in the department. There are very few places where students are examined in E. N. T. at University level. These are Amritsar, Delhi, Patna, Darbhanga, Dibrugarh and Cuttack. I can tell you without hesitation that graduates of these places have better working knowledge in E. N. T. than at other places. We have not laid down our cudgel and we should brandish it still so that examination in E. N. T. is introduced at Under Graduate level in all the colleges and it should survive at places where it exists. A General Practitioner must have working knowledge of dealing with emergencies *i.e.* removal of Foreign Body from Ear and Nose and to know that a child is crying due to ear trouble.

(b) *Post-Graduate* :—12 years ago Central Government appointed a Committee under the Chairmanship of Sri Mudaliar to go round the country and to recommend places for up-grading in certain speciality. No place was found suitable for up-grading E. N. T. or should I say E. N. T. was not considered a speciality. The formation of Post Graduate Institute in Delhi is nearing completion. We do not know what is happening in our speciality. It is learnt that Government of India has appointed another Committee to go round, on the basis of Mudaliar Committee, for up-grading certain speciality at certain places. I would request the sponsor of that Committee to see that some places are recommended for up-grading in our speciality.

At many places D.L.O. courses have been started and M.S. Degree is bestowed upon candidates working for them, but it is high time that uniform standard is laid down by the Indian Medical Council.

(c) *Research* :—In the existing economic condition of the country and the facilities available with all the limitations in import of foreign equipments etc., I feel the clinical materials available to us offer enough field for Research in our country. By this I mean collection and observation on long series of cases, particularly those peculiar to tropical climates, *e.g.*, Rhinopodiosis maggot infection of nose, Tuberculous adenitis and its relationship to tonsils and such other subjects. Working on these lines it may be possible to put forth ideas and views that may add to the existing knowledge of the medical world.

B. Equipment and Appliance

We have deliberated at these conferences from year to year as to how to persuade Government to arrange manufacture or abolish tax on import of such instruments as hearing aid. My revered colleague Dr. Cooper in his Presidential address went so far as to suggest that the Government Telephone Factory at Bangalore should be able to manufacture audiological equipment. Whereas you will be aware, the Government have sanctioned setting up Optical Factory at Calcutta and at Naini, it seems the problem of the Deaf has fallen on deaf ears. Let us once again take up the matter in right earnest and move the Government to help us in a practical way.

We should urge upon various State Governments to create separate E. N. T. department in various district hospitals and to man them with specialist, with full facilities. By this I mean that the specialist must have Laboratory facilities, X-Ray, help of anaesthetist and overall availability of diagnostic and operative instruments. Even in big cities although there are instruments like Audiometer which becomes out of order and there is no suitable person to handle them, a little attention in this direction will be of great help *i.e.* some person should be trained on behalf of Government to deal only with various type of instruments either electrical or other type and his services should be available to various hospitals. Otherwise, for want of a small repair, instruments are kept idle and they ultimately perish. Paucity of funds always comes handy in the way of medical development. The same answer is told by State Government or Central Government to give this convenient answer. The University Grants Commission is distributing money to equip the Universities in India but it is said by them that medical section is not dealt by them but by Medical Department of Government of India.

Deaf and Dumb School :—There should be State owned deaf and dumb school in every State and it should be properly managed and equipped. There are one or two institution in our country which are run on purely voluntary basis and you can know their plight.

Institution for Handicapped:—Along with the school there should be arrangement for work for deaf and dumb that they can carry on vocation of their life nicely. This should act as a laboratory to the school mentioned above.

Prevention of Deafness:—Our school medical service which is very sketchy should be reformed. Regular examination of E.N.T. of school-going children should be a regular feature. This should be done by a skilled person and not by mere medical man. During the epidemic of various infection i.e. small pox etc. special care should be taken of E.N.T. problem and if they be tackled properly much of deafness accrued by this malady can be cut short. Another big cause of deafness is venereal disease. If tackled early the number of deaf can be curtailed.

I do not know if our society is ripe enough to prevent marriage with deaf. Much consciousness has been aroused in other countries and also among educated person of our place. It should be our endeavour that those who are congenitally deaf should not enter into matrimonial alliance.

During conference time, the All India Ophthalmological Society invites Professors of all Medical Colleges to hold discussion as regards teaching in all its aspects. This congregation is preceded by the open conference. I would very strongly urge this conference to follow the same because of personal experience. I can see that much good comes out of the discussion and it becomes easy to formulate programme as regards teaching is concerned.

I am longing for the day when we would be able to invite the International Congress of Otolaryngologist, in India. Ophthalmologists have marched before us in inviting the world congress of their's in 1962.

Let us resolve that we invite the World Congress (of ours) in Paris in 1960 to hold the next session in India in 1964.

Ladies and Gentlemen, I have indulged at random thoughts which came before my mind. I would request you to ponder over my jottings and to help us in all possible way. I thank you all for giving me a patient hearing. I would request you to kindly forgive me for my shortcomings and lapses.



Members attending the Conference.



Some of the Ladies busy at the Buffet Lunch.

RESOLUTIONS

Minutes of the meeting of the members of the Association of Otolaryngologists of India held on the 12th January, 1959 at the G. R. Medical College, Gwalior at 9 a.m. to transact the following business :—

Resolution I.—Moved from the Chair. All members standing. That this Association places on record with grief the tragic demise of one of its members, Dr. R. P. Munshi and conveys the heartfelt condolence to the members of the bereaved family.

Resolution II.—Moved from the Chair. All members standing. That this Association places on record with grief the tragic demise of one of its members, Dr. D. P. Gorde, and conveys the heartfelt condolence to the members of the bereaved family.

The Minutes of the last General Body were read :

Resolution III.—Proposed by Maj. Chatterjee. Seconded by Dr. H. L. Anand. That the Minutes of the last General Body having been read be accepted. Carried Unanimously.

Owing to certain disparity in correspondence concerning the members of sub-committee for the Education and Rehabilitation of the Deaf brought by Dr. Acharyulu, and subsequently explained by Dr. R. A. F. Cooper, it was proposed by Dr. K. K. Gosh and Seconded by Dr. R. N. Misra :

Resolution IV.—Resolved that the Secretary of the Association should keep the Branches informed about the actions taken on the various resolutions passed at the Annual General Body Meeting including the work done by the various sub-committees. Carried Unanimously.

Resolution V.—Proposed by Dr. R. V. Rao. Seconded by Dr. R. N. Misra. Resolved that two new Ordinary Members, Dr. R. K. Singh, and Dr. H. N. Srivastava be accepted by the General Body. Carried unanimously.

Resolution VI.—Moved from the Chair. That the amount of Rs. 3000/- generously donated by the Dr. Joshi Memorial Fund Committee to the Association for the institution of the Dr. Joshi Memorial Lecture at the Annual Conference, from the interest derived be accepted.

Dr. R. A. F. Cooper then explained that the cost of the award Rs. 150/- given to Dr. Samuel Rosen for inaugurating the First Dr. Joshi Memorial Lecture in 1959, was obtained from the General Fund, as the interest on Rs. 3000/- would only mature at the end of 1959 and that this money should be returned to the General Fund in 1960, by dropping the Lecture for one year.

Dr. B. P. Apte however, felt that there should not be a break.

Resolution VII.—Proposed by Dr. B. P. Apte. Seconded by Dr. U. K. Shah. That there should be no interruption of the Dr. Joshi Memorial Lecture for the period of 1960. Carried unanimously.

After some discussion as to the ways and means of securing Rs. 150/- for the award for 1960 it was resolved :

Resolution VIII.—Proposed by Maj. Chatterjee. Seconded by Dr. R. V. Rao. That Rs. 150/- be paid out of the General Fund to meet the expenses incurred for the award of the Joshi Memorial Lecture of 1959 and that hereafter the expenses be met from the interest of the amount of Rs. 3000/- deposited in the Account of the Association.

Resolution IX.—That this amount of Rs. 3000/- be invested in Government securities. Carried unanimously.

The Resolution of the General Body of the last meeting empowering the Treasurer to reinvest the funds of the Association in Government Securities and Bonds was placed before the House and unanimously carried out.

The letter from Major Srinivasan, Hon. E. N. T. Surgeon, Baroda Hospital, inviting the Association to hold its Twelfth annual Conference at Baroda, was read and the following resolution passed.

Resolution X.—Moved from the Chair. That the Twelfth Annual Conference will be held in Baroda in the 3rd week of January, or the 1st week of February, 1960. Carried unanimously.

The Hon. Secretary then read the following report :

The Association of Otolaryngologists of India has on this Eleventh Annual Conference entered the second decade of its existence and from the few pioneers of Otolaryngology who founded the Association the membership has increased, and an addition of 20 Ordinary Members and 6 Associate Members in the past year, is proof enough that our speciality is gradually segregated from general surgery and our Association has been accepted both by the Government and Armed Forces as well as acknowledged by the other Associations of allied subjects and it is pleasing to note that through the efforts of its founder members our Association has been registered and the names of many of its members appear in the 'International Directory of Otolaryngology'.

This year we commemorate the memory of our dear Colleague who is known to one and all of you—Dr. S. G. Joshi, whose zeal and interest in our subject and in the Association, will always be remembered, by Joshi Memorial Lecture, which has been arranged as an annual feature at our

Conference, from the interest of the donation of Rs. 3000/- so kindly given by the Joshi Memorial Fund Committee Members for this purpose ; and we cannot express in words our grateful thanks to Dr. Samuel Rosen whose love for Otolaryngology and our Association has so great that he has returned to India to deliver the first inaugural lecture.

It has been the desire of many of the younger members of our Association to see the recent advancements of the surgery of the ear which with the restriction in foreign currency is not possible for them to go abroad, and hence we have extended the Conference for a day and I am pleased that my senior colleagues have responded very favourably in performing the various operations on the Operative Demonstration Day of the Conference.

Our repeated attempts with the Railway Board to register our Association, has not materialised and again this year we had to apply for the annual concession. I shall again endeavour in this matter.

Before I close my report I have to thank the President, Dr. Sinha, for his co-operation, and the members of the Governing Body for bearing with my shortcomings in the past year.

Resolution XI.—Proposed by Dr. R. V. Rao. Seconded by Dr. Sharma. That the Hon. Secretary's report having been read be accepted. Carried unanimously.

In the absence of the Treasurer Dr. K. N. Apte, Dr. R. A. F. Cooper read the Hon. Treasurer's report which was as follows :

Dear President and Friends,

The audited accounts of the year 1958 will be published in the next issue of the Indian Journal of Laryngology and Otolaryngology. It is not possible to submit the certified copies of the audited balance sheet of accounts for the year 1958 and cyclostyled copies as it is not possible to get them typed and certified by the chartered accountants within a week.

The final account on 31st December 1958 shows a credit balance of Rs. 13946-47 nP. including investments at costs of Rs. 8543-75 nP. and furniture and equipment at cost of Rs. 669-15 nP. The final account shows excess of income over expenditure amounting to Rs. 1324-10 nP. after contributing Rs. 697-43 nP. to the Indian Journal of Laryngology and Otolaryngology. The shares and debentures in joint stock companies have been liquidated and the amount so realised has already been invested in Government Securities to comply with the requirements of "Trust Act."

As per advice of Messrs. Bhansali and Mehta Rs. 3000/- of Dr. Joshi Memorial Fund may be utilized for investment in Government or State

securities as prescribed *vide* Section 35 of the Bombay Public Trust Act and the interest from such securities be utilised for the token medal for the outstanding lecture of the year at the Annual Conference. I have to request you to authorise Hon. Secretary and Treasurer to effect the necessary investment.

I repeat my request to various branches to claim their quota of subscription after sending a stamped receipt for the same in advance to the Hon. Treasurer.

I thank you all and especially Dr. R. A. F. Cooper and Dr. Joe V. DeSa for their assistance during the year.

Resolution XII.—Proposed by Dr. K. U. Shah. Seconded by Dr. Acharyulu. That the Treasurer's report having been read be accepted. Carried unanimously.

Dr. Miss Leelavathi then read the report of the Journal Committee giving the details of the statement of accounts of the Indian Journal of Laryngology and Otology.

Dr. R. A. F. Cooper requested that according to the past resolution the amount obtained from advertisements from various cities a percentage should have been returned to the respective branches. Dr. V. S. Subramanian explained that it was not possible as no record was kept of such advertisements and if Branches could furnish him with the details, he would comply with the request.

Resolution XIII.—Proposed by R. N. Misra. Seconded by Dr. Chatterjee. That the report of the journal committee having been read be accepted. Carried unanimously.

The election of the President of the forthcoming year: As only one nominee was received by the Secretary, Dr. R. N. Misra, he was unanimously elected President of the Association of the next year.

Dr. P. N. Sinha outgoing President invited Dr. Misra onto the Dais and made a very warm and encouraging speech, and requested Dr. R. N. Misra to continue the good work of the Association and handed over the Presidential medallion.

Dr. R. N. Misra then nominated Dr. M. L. Bhatia as his Associate Secretary.

Resolution XIV.—Moved by the Chair. Carried unanimously. Proposed by Achyutanand Sinha (Patna.) Seconded by Dr. Awadhesh Prasad. (Dehri-on-Soni).

Resolution XV.—It is resolved that this Association of Otolaryngologists of India will hereon maintain a Register of:

- (a) Hospitals in India with E. N. T. Beds and number of such beds.
- (b) Schools for Deaf and Mute in India, place, staff, and number of students on the roll.
- (c) Name of medical colleges in India, with rank and staff of E.N.T. Dept., with particular reference to:
 1. E. N. T. Dept., is an independent unit or under Surgery!
 2. Whether E.N.T. Dept., associated with Ophthalmology or any other speciality.
 3. Subject of examination for M.B.B.S.: Whether E.N.T. is a paper if so whether the paper is associated with ophthalmology or general surgery or otherwise.

Carried unanimously.

Resolution XVI.—Proposed by Dr. S. N. Jain. Seconded by Dr. S. N. Sinha. It is hereby resolved that the invitation of the date and place of the Conference be intimated to Chief Medical Officers of the Railways and he be requested to extend all the possible facilities to the E.N.T. Specialist working in their service (as is done in case of Indian Defence Service). Carried unanimously.

As the report of the convenor of the sub-committee for amending the rules and regulations was just discussed and finalised by the Governing Body it was resolved:

Resolution XVII.—Proposed by Dr. K. U. Shah. Seconded by Dr. H. L. Anand. That the report of the convenor of the sub-committee for amending the rules and regulations discussed by Governing Body be circulated to the members of the Association by the 15th of April and should the members require to refer to the original rules they should obtain it from the Secretary of the local branches. Carried unanimously.

Resolution XVIII.—Proposed by Dr. H. L. Anand. Seconded by Dr. Sharma. Proposed that the wives or husbands of the members attending the Conference be considered as Associate members of the Conference and that concession be applied from the Railway authorities accordingly, "Members and Associate Members of the annual Conference of the Association of Otolaryngologists of India." Carried unanimously.

The subject for the symposium for the 12th Annual Conference was then discussed and then the following was resolved.

Resolution XIX.—Subject: New growths of the Paranasal Sinuses. Opener: Dr. K. K. Ghosh (Calcutta). Anatomy: Physiology: Dr. A. Sinha (Patna). Pathology: Dr. Tulsidas (Amritsar) Punjab. Clinical aspect: Dr. P. N. Sinha (Patna). Radiological diagnoses and Radio Therapy: Dr. Leela-vathi (Madras). Surgical Treatment: Dr. Taneja (Amritsar), Dr. R. A. F. Cooper (Bombay) and Dr. Joe V. DeSa (Bombay). Vote of thanks.

Resolution XX.—Proposed by Dr. Sharma. Seconded by Dr. R. A. F. Cooper. Resolved that the Railway Board be thanked for the concession granted and be requested to put the name of our Association on the list for the Annual Concession so that it will not be necessary to apply annually for the concession. Carried unanimously.

Resolution XXI.—Proposed by Dr. V. S. Subramanian. Seconded by Dr. Chatterjee. Resolved that Messrs. Bhansali & Mehta be thanked for their kind services rendered for the year 1958, as the auditors of the Head Office, and they be requested to continue for the next year.

Resolution XXII.—Moved from the Chair. Resolved that Messrs. John & Co., Hon. auditors at Madras for the journal be thanked for their kind services rendered for the year 1958 and they be requested to continue the same for the next year.

Resolution XXIII.—Moved from the Chair. That the Chairman, Organising Secretary, and the members of the Organising Committee of the Eleventh Annual Conference held at Gwalior be thanked for their excellent arrangements and generous hospitality.

Resolution XXIV.—Moved from the Chair. The President and the members of the Association of Otolaryngologists of India express their grateful thanks to:

1. The Principal and Staff of G. R. Medical College, Gwalior.
2. Superintendent and Staff of the J. A. Group of Hospitals, Gwalior.
3. Deputy Director of Health Services.
4. His Highness the Maharaja Scindia, Gwalior.
5. Shri D. P. Mandelia, General Manager, Birla Mills, Gwalior.
6. J. B. Mangharam.
7. Volunteers.

Resolution XXV.—Moved from the Chair. That the President, Members of the Governing Body and the members of the Association of Otolaryngologists of India are deeply grateful to Dr. Samuel Rosen for his

prompt acceptance of the invitation to inaugurate the Dr. Joshi Memorial Lecture at the Eleventh Annual Conference and for his kindness in demonstrating the surgery for Mobilization of the Stapes, to the members of the Association at Gwalior, and to Mrs. Rosen for assisting him in this surgical procedures. Carried unanimously.

Resolution XXVI.—Moved from the Chair. Resolved that the delegates nominated by this Association for the Seventh International Conference to be held in France early next year be Dr. R. A. F. Cooper (Bombay) and Dr. P. N. Sinha (Patna). Carried unanimously.

Resolution XXVII.—Dr. Sharma then read a letter wherein he and Dr. Subramanian were approached to form a committee to study Laryngeal Cancer in India, whereby it was proposed by Dr. Cooper and seconded by Dr. Chatterjee:

That the sub-committee with Dr. Subramanian, Dr. Sharma, Dr. P. N. Sinha, Dr. R. N. Misra, and the Hon. Secretary be formed to study and forward the report on Laryngeal Cancer in India to the International Committee investigating this disease. Carried unanimously.

With a vote of thanks to the Chairman meeting was terminated.

HYDERABAD BRANCH

A combined clinical meeting of the eye and E. N. T. Association of Hyderabad Branch was held on 16th February 1959. Prof. P. N. Sinha, immediate past President of the parent body had kindly consented to be the chairman. The following cases were demonstrated—

- (1) Dr. P. Shiva Reddy: a case of proptosis.
- (2) Dr. Seshagiri Rao: a case of carcinoma limbus in a young adult.
- (3) Dr. A. B. N. Rao: a case of eosinophilic granuloma.
- (4) Dr. S. N. Jain: eight cases of growth larynx treated by different surgical approaches *i.e.* laryngofissure, laryngectomy and Trotters transthyroid pharyngotomy.
- (5) Dr. K. Keshav Kumar: A case of glomus jugular tumour.

The meeting came to a close by the concluding remarks of chairman Prof. P. N. Sinha and President Lt. Colonel P. Papatla.

The Bombay Public Trust Act, 1950, Schedule VIII *Vide* Rule 17(1)
The Association of Otolaryngologists of India—Balance Sheet as at 31st December 1958

LIABILITIES		Rs.	nP.	Rs.	nP.	ASSETS	Rs.	nP.	Rs.	nP.
Income and Expenditure Account :										
Balance Brought Forward	...	12,622	37			Investments (at cost)			8,242	75
Add: Excess of Income over expenditure during the year as per annexed Income and expenditure account.	...					As per Schedule attached				
	...	1,023	10	13,645	47	Furniture and Office Equipment			669	15
	...					(At Cost)				
The Journal of the Association of Otolaryngologists of India Account						The Journal of The Association of Otolaryngologists of India Investments Account :				
Being the amount received from them for Investment as per contra	...					4% 1954-64 Bombay Municipal Debentures of the face value of Rs. 3,000.-	3,007	50		
	...					3½% Loan 1974 of Government of India of the face value of Rs. 2,500.-	2,462	50		
S. G. Joshi Memorial Fund						Advances :			5,470	000
	...			5,529	53	Dr. C. Singh Anand			250	000
	...			3,000	00	Cash in Bank :				
	...					In Current Account with the Lloyds Bank Ltd., Standing in the name of the Hon. Secretary and Hon. Treasurer			7,543	10
Total	...			22,175	00	Total			22,175	00

As per our Report of even date attached.

The above Balance Sheet to the best of our belief contains a true account of the Funds and Liabilities and of the Assets of the Trust.

2nd March, 1959.
BHANSALI & MEHTA,
Chartered Accountants

9th March, 1959.
P. N. SINHA,
President.
J. V. DeSa,
Hon. Secretary.
S. K. APTE,
Hon. Treasurer.

The Bombay Public Trust Act 1950, Schedule IX *Vide* Rule 17(1)
The Association of Otolaryngologists of India—Income and Expenditure Account for the year ended 31-12-1958

EXPENDITURE		Rs.	nP.	Rs.	nP.	INCOME		Rs.	nP.	Rs.	nP.
To Establishment Expenses :						By Subscription Account :					
Salaries	...	180	00			From Ordinary	...	2,256	00		
Printing and Stationery	...	77	30			From Associated Members	...	204	00	2,460	00
Bank Charges	...	49	22								
Sundry Expenses	...	84	55	391	07	Interest :					
(Including Postages, Telegrams etc.)	...					On Securities (after adjustments of Income-tax and Bank Charges deducted at source)	...	113	33		
Audit Fees	...					On others (after adjustment of Income-tax and Bank Charges deducted at source)	...	26	16	139	49
Share of Subscription to Branches :	...					Dividend (Received)	...			86	25
Hyderabad Branch Share	...	129	00								
Delhi Branch Share	...	63	00			Income from other Sources :					
Less : Amount shown as paid and taken as expenditure during previous year not paid, as cheque returned (Trivandrum Branch)	...	192	00			Refund from Charity Commissioner.	19	16			
	...	48	00	144	00	Bank Charges received from members.	15	04	34	20	
Expenses on object of Trust :	...					Total				2,719	94
Annual Conference Expenses	...	150	00								
Contribution towards Journal a/c.	...	697	43	847	43						
Loss on Sale of Investments	...			164	34						
Excess of Income over Expenditure subject to provision of Depreciation during the year transferred to Balance Sheet	...			1,023	10						
Total	...			2,719	94						

As per our Report of even date.

The above Income and Expenditure Account to the best of our belief contains a true account of the Income and Expenditure of the Trust.

2nd March 1959
BHANSALI & MEHTA,
Chartered Accountants.

9th March, 1959.
J. V. DeSa,
Hon. Secretary.
S. K. APTE,
Hon. Treasurer.

Registered No. P-417 (Bombay)

The Bombay Public Trust Act 1950, Schedule IX-C Vide Rule 32
**The Association of Otolaryngologists of India—Statement of Income
 liable for contribution for the year ended 31st December 1958**

PARTICULARS	Rs.	nP.
Income during the year	2,685	74
As per annexed Income and Expenditure Account.		
To Contribution:		
Cost of collection of receipts from Stock etc. at 1% of such receipts	2	26
Income liable for contribution	2,683	48

J. V. DeSa,
Hon. Secretary.

N. K. APTE,
Hon. Treasurer.

BHANSALI & MEHTA,
Chartered Accountants.

2nd March 1959.

**The Association of Otolaryngologists of India Schedule of
 Investment (At cost) for the year ended 31st December, 1958**

PARTICULARS	Rs.	nP.
3% 1966-68 Government of India Funding Loan at the Face Value of Rs. 2,000/-	1,816	25
3½ Loan 1974 of Government of India of the Face Value of Rs. 1,500/-	1,477	50
3½% National Plan Loan 1965 of the Face Value of Rs. 1,400/-	1,379	00
P. O. 12 year National Plan Savings Certificate	3,570	00
Total	8,242	75

As per our Report of even date attached.

J. V. DeSa,
Hon. Secretary.

N. K. APTE,
Hon. Treasurer.

BHANSALI & MEHTA,
Chartered Accountants.

2nd March 1959.

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Statement about ownership and other particulars about newspaper, INDIAN JOURNAL OF OTOLARYNGOLOGY to be published in the first issue every year after the last day of February.

Form IV—(See Rule 8)

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Nationality ... Indian (Madras State).
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6. Name and address of individuals who own the newspaper and partners or shareholders holding more than one per cent of the total capital. Association of Otolaryngologists of India, Bombay.
Chairman: Dr. Tulsi Das, 9, Cantonment, Amritsar.
President: Dr. R. N. Misra, E. N. T. Surgeon, King George Medical College, Lucknow.

I, V. S. Subramanian, hereby declare that the particulars given above are true to the best of my knowledge and belief.

V. S. SUBRAMANIAN,

Signature of Publisher.

31-3-1959.

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