SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY

President: J. ANGELL JAMES, M.D., F.R.C.S.

December 7th, 1956

Discussion on Benign Tumours of the Larynx

THE opening papers by Mr. F. C. W. Capps and Mr. J. P. Stewart will be found on pp. 709-729.

Short Papers

NON-SPECIFIC GRANULOMA OF LARYNX

By R. SALKELD

NON-SPECIFIC granuloma occurs in the nose, but I have not been able to find any record of one occurring in the larynx, and therefore thought the following case might be of interest. I first saw this patient on the *22nd November, 1954*. He was referred to me by the Chest Physician, and had complained of loss of voice for two months. He was 68 years of age, a well-built man, who was a retired farmer, and had never previously had any serious illness. Examination of the larynx showed a smooth swelling on the left side, which hid from view both the true and false cords, and gave the appearance of a benign neoplasm. The right vocal cord was normal in appearance and movement. A biopsy was performed, and the preliminary report on the *26th November* from Dr. Cooper, County Pathologist, stated "serial sections have had to be studied, and the evidence favours an inflammatory lesion".

The report on the biopsy not being available, a laryngo-fissure was performed on the *3rd December, 1954*. Below the smooth, rounded swelling a large amount of granulation tissue was seen, and there was no sign of either true or false cord. The whole of the diseased mucous membrane, the granulation tissue, and the periosteum lining the thyroid cartilage were all removed by diathermy, and the larynx closed up.

The report on serial sections was received from Dr. Cooper, County Pathologist, on the tissue which had been removed at laryngo-fissure, read as follows: "The section shows an unusual lesion of loose inflammatory tissue and hyperplastic mucous glands. There is some epithelial distortion, but I believe this may be regarded as a benign lesion. A preparation was stained for acid fast bacilli, but none was found. (2 observers)." Wassermann and Kahn reactions were both negative. A second opinion was taken on this lesion from Dr. C. V. Harrison of the Post-Graduate Medical School, Hammersmith, who said: "Because of the focal arrangement of both the lymphoid tissue and the plasma

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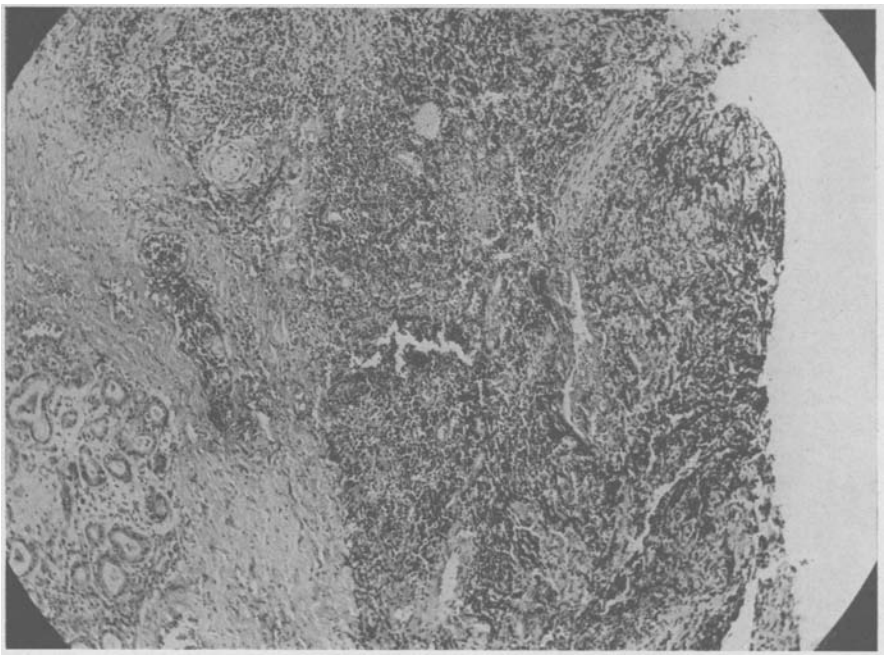


FIG. 1.
Non-specific Granuloma of the Larynx × 100.

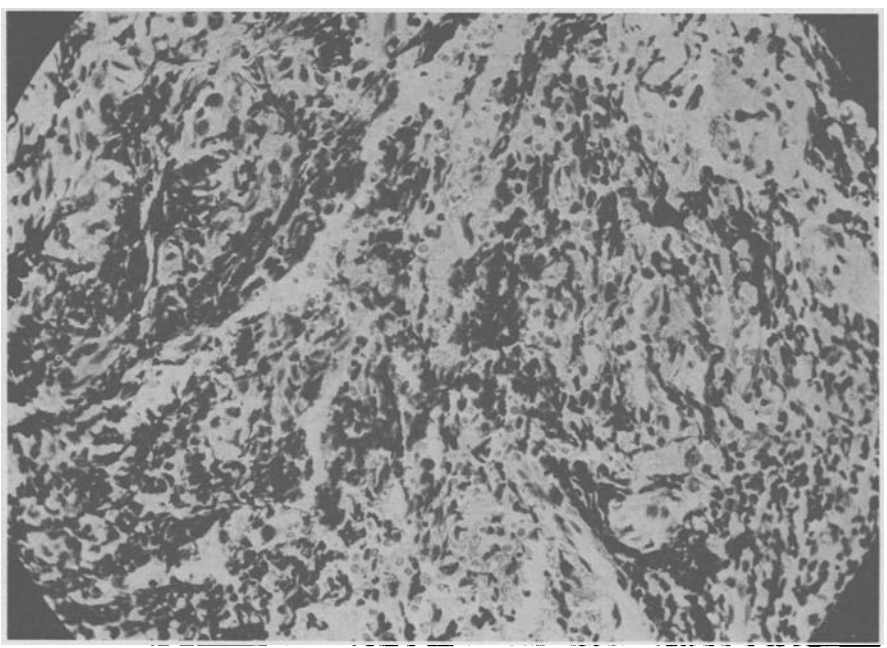


FIG. 2.
Non-specific Granuloma of the Larynx × 400.

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cells, I think this is an inflammatory lesion. What I have not been able to help you with is the ætiology. Malignant granuloma I have only seen in the nose, though I suppose it can occur in the larynx, too. The few cases I have seen are characterized by considerable necrosis and an ordinary banal type of inflammatory response. In other words, the present case is unlike the few malignant granulomas I have seen."

A report from Dr. I. Friedmann of the Institute of Laryngology and Otology states: "I fully endorse Dr. C. V. Harrison's excellent report. Cases of malignant granuloma of the larynx I have seen showed considerable necrosis, and sometimes giant cell formations. There are no such features in this section. I have seen cases of carcinoma of the larynx in which several biopsies only produced evidence of chronic inflammation but eventually convincing evidence of malignancy could be obtained by repeated biopsies." (See Figs. 1 and 2.)

On the *1st April, 1955*, a further biopsy was performed, and the report from Dr. Cooper was as follows: "Section again shows an inflammatory granulomatous lesion with abundant plasma cells."

The airway remained good, and the patient rapidly became ambulatory, but in the succeeding months, the left side of the larynx began to swell, and finally, on the *10th May, 1955*, a tracheotomy became necessary. Dr. Lassetter, Radiotherapist at the Royal Victoria and West Hants Hospital, was then consulted concerning the advisability of deep X-ray therapy. It was decided to try this, and treatment lasted from the *18th May* until *24th June*, and was given through two parallel opposing 6 by 8 cm. lateral laryngeal fields.

Total skin dose 4,200 r

Estimated tumour dose 4,550 r in 27/40 days. H.V.L. 2·0 mms. Cu.

The results of this treatment were most gratifying and the tracheotomy tube was removed on the *15th August, 1955*.

Examination on the *6th February, 1956*, showed a good airway, but there was still some persistent œdema in the area of the left arytenoid. The patient had a mild chronic bronchitis, which tended to make him cough and there was a certain amount of breathlessness on exertion. On the *22nd March, 1956*, the patient was admitted to Westbourne Hospital with a definite stridor. Examination of the larynx showed that the condition was inactive on the left side, but that the right side of the larynx was swollen and was causing a narrowing of the glottis. A tracheotomy opening was made once again, and the patient became comfortable. During all this time there has been no sign of general deterioration of the patient, whose general health and body weight have been well maintained. Deep X-ray was again given, but this time to the right side of the larynx. Two parallel opposing 4 by 4 cm. fields were used, centred on the larynx.

Total skin dose 2,200 r

Estimated laryngeal dose 2,200 r in 13/17 days. H.V.L. 3 mms. Cu.

The course started in *April, 1956*. Unfortunately, it did not appear to have the same effect on the right side as the previous course had had on the left, and there was little or no improvement. As the condition bore superficial resemblance to one of tuberculosis, it was decided to institute anti-tuberculous treatment, and for six weeks he had 1 grm. Streptomycin daily, and 12 grm, P.A.S. daily in four divided doses, together with Isoniazid 100 mg. t.d.s. Dipasic tablets were also given. This treatment had no beneficial effect, and it was therefore decided

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to try him on anti-specific treatment. He received four weekly injections of 0·3 grm. N.A.B. Wassermann and Kahn, it will be remembered, were found to be negative on two occasions. It was intended to continue the N.A.B. but as he felt worse and began to develop dysphagia for the first time, the injections were stopped.

He was re-admitted to the Dorset County Hospital, having previously been ambulatory, and on the advice of our Physician, Dr. Jarrett, Cortisone therapy was instituted. He was given Prednisolone 10 mg. four times, and later twice daily. Later, the dose was reduced to 5 mg. three times, twice, and then once daily. The treatment continued for six weeks, during which time he was also given Aludrox. During this treatment, there was definite lessening of the dysphagia. He is now having injections of Cortelan 2 c.c. daily, 1 Diamox tablet in the morning, and is on a salt-free diet, using Therasal as a substitute. He has no pain, a very poor voice, very slight difficulty in swallowing, and an occasional cough due to a mild bronchitis.

The section shows an unbroken line of epithelium at the edge, and well-marked perivascular collections of round cells and plasma cells.

CHONDROMA OF THE ARYTENOID

By L. F. W. SALMON

MRS. E. S., age 59, was sent to see me in *June, 1954*, complaining of hoarseness and noisy breathing.

History

She had become hoarse quite suddenly thirteen years previously "following the shock of an air raid incident". A laryngologist, who saw her six months later is said to have found her right vocal cord paralysed and advised investigations which were never carried out. The condition remained stationary for about 18 months and then improved rather, so that although she remained unable to sing, her speaking voice was not strikingly abnormal.

In *December, 1953*, she caught cold, became hoarse again and slowly developed inspiratory stridor, at first on exertion but later precipitated even by talking.

On Examination

Indirect laryngoscopy revealed a large rounded mass expanding the right aryepiglottic fold, almost hiding the glottis and crowding the posterior commissure far across to the left. It looked to be covered with intact and healthy mucous membrane traversed by a dilated vein. The right cord, hardly to be seen, was quite immobile, while the very small amount of abduction to the left cord on inspiration created no more than a chink to breathe through.

X-rays

The lateral view (Fig. 1) showed an oval tumour with characteristic mottling of an ossifying chondroma.

Consideration of this and the laryngoscopic appearance suggested a chondroma of the right arytenoid cartilage.

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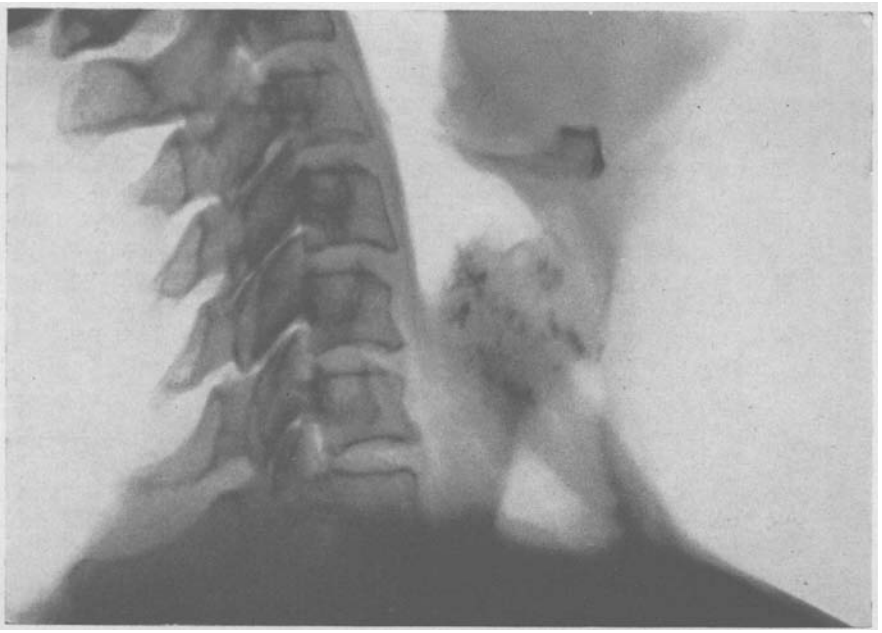


FIG. 1.
Lateral Radiograph. The patchy appearance due to irregular calcification is characteristic.

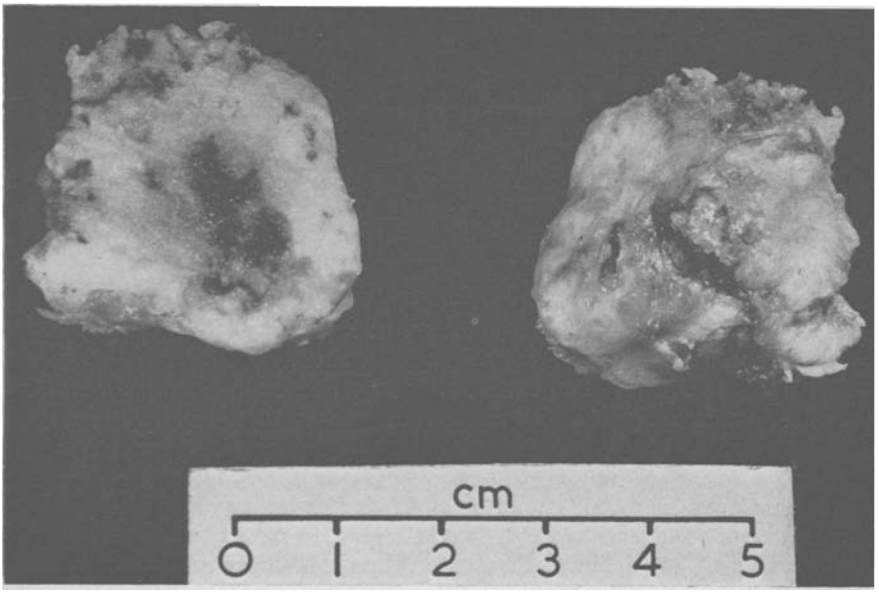


FIG. 2.
Photographs of the tumour after removal; cut surface and outward appearance.

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Operation

She was admitted two weeks after examination and a low tracheostomy performed under local anæsthesia. At Dr. Helliwell's suggestion an oxygen-helium mixture was administered throughout and kept the patient very comfortable, diminishing the stridor.

One week later through a curved lateral incision the tumour was removed, making use of the Woodman arytenoidectomy approach. That is to say, the thyroid ala on the right side was exposed; the thyroid origin of the inferior constrictor, the crico-thyroid articulation and the thyro-hyoid ligament were divided and the thyroid ala retracted forward and outward to reveal the tumour.

Without much difficulty it was dissected out.

It will be seen (Fig. 2) to be quite a large encapsulated tumour measuring $3\frac{3}{4}$ cms. at the widest.

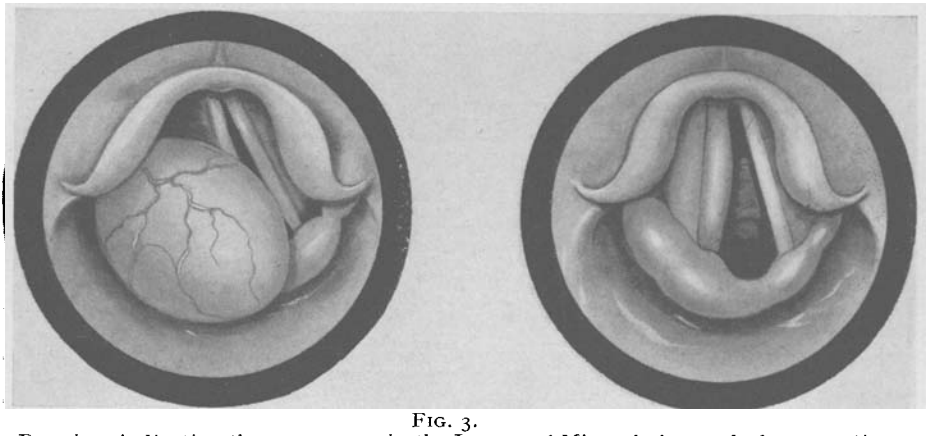


FIG. 3.
Drawings indicating the appearance in the Laryngeal Mirror before and after operation.

Histology

Dr. de Navasquez examined the tumour microscopically and confirmed its nature. The appearance was strikingly featureless, field after field showing just matrix with scarcely any cellular detail.

Post-operative Course

The patient made an uneventful recovery; the tracheostome was allowed to close after one week and she was discharged fit nine days later.

When last seen at the end of *November, 1956*, she had no complaints, except that she still cannot sing. The speaking voice was essentially normal.

Discussion

As Mr. Capps has said, chondromas of the larynx are rare and the least common site of occurrence seems to be the arytenoid cartilage. He has been able to trace six such cases in the literature. The extra-laryngeal approach as for the Woodman arytenoidectomy proved satisfactory.

I am indebted to Miss Waldron and Mr. Engles of the Department of Medical Illustration at Guy's Hospital for the drawings and the photographs.

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A CASE OF BILATERAL EXTERNAL LARYNGOCELE

By J. M. KODICEK, F.R.C.S. (for G. H. BATEMAN, M.A., F.R.C.S.)

An elderly male retired shopkeeper (aged 77 years) was admitted to the medical ward under Dr. Wheaton with pneumonia in *July, 1956*. The chest condition responded to treatment, but he remained rather incapacitated on account of

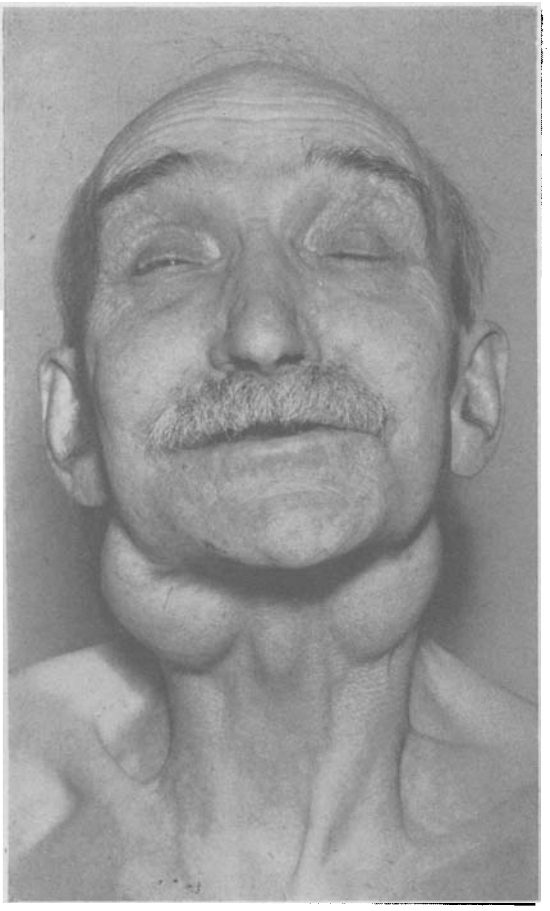


Fig. 1.
Patient with laryngoceles blown up.

severe osteo-arthritis of the lumbodorsal spine. During his long stay in hospital, great interest was aroused by his ability to blow out a swelling on each side of his neck whenever he spoke or made any effort involving the closure of his glottis. (Fig. 1).

Further enquiry showed that in 1916, during the first World War, he was blown up by a shell and buried. He spent about a year in military hospitals, and

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was very hoarse at first. Later his voice improved but he has remained husky ever since, and the ability to inflate his neck on phonation dates from his war injury. There was apparently no direct trauma to his throad or neck. Since then he has remained perfectly fit, and the cysts in his neck have been a source of amusement to him and his friends rather than a disability.

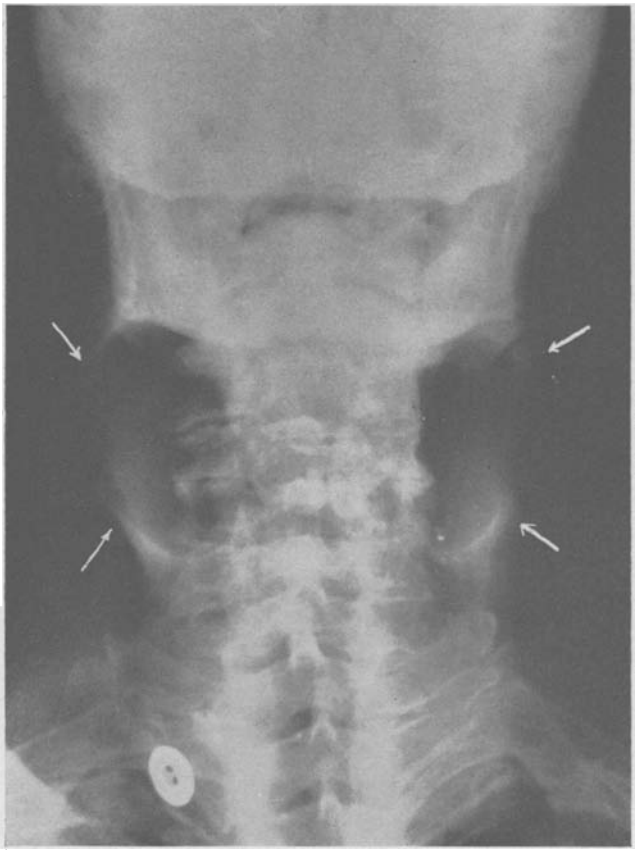


FIG. 2.

Plain radiograph showing inflated laryngoceles.

Examination showed a cheerful old man with a husky voice. Palpation of the neck during quiet respiration revealed no abnormality. When asked to phonate, an air-filled cyst appeared on each side of his neck in front of the sternomastoid and extending from just below the angle of the lower jaw to about the level of the cricoid. It was possible to prevent the appearance of the cyst by placing a finger over the thyro-hyoid membrane just above the posterior third of the thyroid ala. The cysts were almost symmetrical, mobile and subcutaneous.

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The nose, nasopharynx, mouth and pharynx were normal. The larynx also showed no abnormality on quiet respiration. Phonation produced symmetrical and full movements of both true vocal cords, but as soon as they began to adduct, the false cords also came together, so that at the point of phonation the false cords were completely adducted.

Radiography demonstrated the cysts in his neck (Fig. 2), but as he was symptom-free and as his stiff and sensitive spine made prolonged X-ray procedures very uncomfortable, examination with contrast medium and tomography was not performed.

Laryngocele is an uncommon condition. Three types are described: the external, internal and a combination of the two (Fig. 3). They may be fixed or

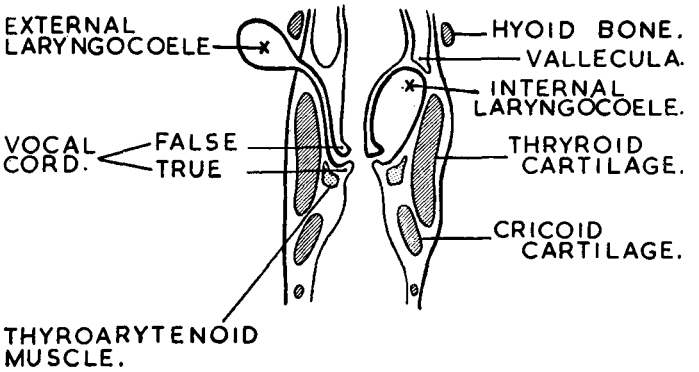


FIG. 3.

Coronal section through larynx showing internal and external laryngoceles. (After Butler.)

mobile, and in the latter variety they are usually produced by efforts involving forcible closure of the glottis such as coughing, heavy lifting, etc. This case is unusual in that speaking was enough to inflate the laryngoceles. It appeared possible that he had rather a roomy ventricle and saccule, which began to fill with air on expiration, thus facilitating the approximation of the false cords during phonation. On the other hand, the explanation may lie simply in a faulty method of voice production.

The cysts of the laryngeal ventricle and saccule show a marked similarity to ventricular air-sacs present in some monkeys and apes. It seems rather unlikely that repeated increase in intralaryngeal pressure should drive the enlarging saccule through the thyro-hyoid membrane to form a laryngocele. In our patient there was no occupational history of repeated expiratory effort, and the war injury is unlikely to have produced a symmetrical herniation of the laryngeal saccule. A much more probable explanation is that there were congenital air-sacs present, and the powerful efforts of freeing himself from the rubble which was burying him alive, widened their communication with the larynx enough to inflate those air-sacs.

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Our thanks are due to Dr. C. E. Wheaton, M.D., M.R.C.P., for allowing us to see the case, Mr. T. W. Brandon for the film and photographs, and Miss J. Dewe for help with the diagram.

PRIMARY CARCINOMA PRESENTING IN RIGHT NOSTRIL—MAXILLARY RESECTION WITH OSTEOPLASTIC RESTORATION OF ANTRUM

By MR. W. O. LODGE

THIS case is of no outstanding clinical interest. Ellen M. (63) was referred by Dr. H. Murtagh on *December 2nd, 1953*, for treatment of nasal polypi which had recurred and been removed at intervals for twenty-five years. Biopsy revealed in some of the polypi compact columns of epithelial cells separated by connective tissue. Within these columns were acinar spaces lined by cells varying in type from ciliated respiratory to stratified squamous: Dr. H. G. Phelon said that in his opinion the condition was one of papillary carcinoma.

Irradiation was advised but declined—it seems—on the grounds of unfortunate associations with such treatment in the family.

On *October 10th, 1954*, Dr. Murtagh referred the patient again in an advanced stage of the disease. Radiology revealed a pyocele of the right frontal sinus and erosion of the antral walls, regarded by Dr. R. I. Lewis as neoplastic, because of the absence, in that situation, of inflammatory reaction. Tissue protruded from the nostril. Modified maxillary resection was accepted by the patient on the understanding that it was to be completed at one session if possible and to inflict no avoidable mutilation.

The external carotid was ligated above the lingual branch. A gland removed for histology showed no evidence of malignancy, according to a subsequent report.

The classical incision was modified. An improvement is to carry the incision along the grey line in the margin of the eyelid, which is split, the outer layer bearing the cilia being reflected outwards with the musculo-cutaneous flap. This preserves both the nerve supply to the orbicularis oculi and the lymphatics of the lower eyelid. The inferior lacrimal punctum is approached no nearer than will allow of suture hold at the conclusion of the operation. Laterally, the incision extends out on to the cheek; medially, it passes down the side of the nose and round the junction of the ala nasi and upper lip; finally, it descends along the margin of the philtrum, through the red margin of the upper lip into the mouth. A palatal or alveolar incision is also made.

The superior maxilla was then removed in the classical manner except that the palatal mucosa was spared, being healthy. Innumerable polypi of varying consistency caused the specimen to resemble a chorion-epithelioma. The pyocele of the frontal sinus was treated by Howarth's method. The contents were sterile.

The maxillary antrum was then partially restored by means of an internal osteoplastic flap, derived from the nasal septum, of which sufficient was

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reflected to support the orbit, without depriving the so-called nasal pyramid of adequate strength. The homolateral septal mucosa was laid in contact with the palatal mucoperiosteum to carpet the floor of the new antral cavity. The rest of the septum, covered by the contralateral mucosa, was sutured to the temporal fascia and integuments by stainless steel wire, to reconstruct the ceiling of the new antrum and subserve its function of supporting the orbital contents.

A good recovery was made. A small aperture anteriorly, which did not interfere with speech but allowed some degree of access for inspection, was closed by a prosthesis, made by Mr. R. Ross, L.D.S.



FIG. 1.

Osteoplastic restoration of antrum after maxillary resection. The ideal incision traverses the grey line between the eyelashes and the tarsal plate, superiorly, and the homolateral margin of the philtrum of the upper lip, inferiorly. The ceiling of the new cavity is reconstructed from the nasal septum, except for the mucoperichondrium and mucoperiosteum of the adjacent side, which carpets the floor provided by salvaged palatal mucoperiosteum. The duration of the operation is between one and two hours. A hundred years ago it used to be done in about sixteen minutes. Then, the measure of perfection was simplicity.

In compliment to a visitor from overseas, Mr. Lodge mentioned that a former President of the United States had his upper jaw removed and in order to avoid press publicity this operation was performed on board a yacht, steaming up the East River at half speed. The celebrated patient lived for fifteen years. The orbital floor was preserved. A diagnosis of sarcoma was made.

The remote prognosis was bad because the pathologist had reported invasion of the antral wall, but because of the low malignancy of the growth, the patient

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might gain a renewed lease of life without much mutilation. The modifications described were best adapted to very early cases such as those in which the presenting symptom was neuralgia and the growth was demonstrated by injection of lipiodol into the antrum; then the surgeon might feel inclined to undertake ruthless and effective treatment, thus mitigated with confidence.

TUBERCULOSIS OF THE PHARYNX

By P. E. ROLAND, F.R.C.S.Ed., D.L.O.

TUBERCULOSIS of the pharynx without involvement of other organs appears to be very rare. The only references in the literature which I could find were cases reported by Piaget in 1946 and by Duken in 1933. Recently dentists have found tuberculous ulcers, usually single and following dental extractions, which were associated with marked cervical adenitis. Cameron, Boyes and Miller among others have reported these cases which they considered primary infections.

My first case is that of a young dental mechanic, aged 19, who was referred to me in *October, 1952*, with a history of ulceration of his throat of several weeks' standing. He appeared to be in good general health, but examination of his throat showed widespread ulceration of his soft palate, uvula and pillars of the right tonsil. I did not get a photograph of his throat, but its appearance was very much like the one of this lady who had active pulmonary Tb as well and whom I, therefore, did not include in this report. The first picture shows well the inflammatory reaction around the ulcers and the second shows the numerous small tubercles surrounding the ulcerated areas. X-ray of the chest was normal and sputum negative for Tb. W.R. and Kahn were negative, E.S.R. was 4 mm. in the first hour. Biopsy showed tubercles with giant cells, but without caseation, it was thought to be suggestive of tuberculosis. He was put on systemic streptomycin and P.A.S. and within two months the pharynx had returned to normal with the exception of the uvula which remained thickened for several months. I saw him again last week and his pharynx was quite normal and there was no scarring.

My second case was that of a man of 28 who in *October, 1953*, had a left Caldwell-Luc operation done for the removal of a tooth root. I am grateful to Mr. Rainer for letting me know that at the time he found no other abnormality. He then went to Venice on an Italian Government scholarship to study history of art and to make ends meet had to economize on food. Early in 1954 he developed nasal discharge and a sore throat, and as he could not afford the Italian doctor's fees, he returned to his wife's home at Rugby, where I saw him in *March, 1954*. He then had some discharge from his left nostril and an antrum wash-out produced little pus, the antrostomy still being patent. The nasal mucosa was congested, but not ulcerated nor infiltrated. I was, however, struck by the appearance of his pharynx which immediately reminded me of the previous case. It showed infiltration and punctate ulceration of the posterior pharyngeal wall and soft palate. X-ray of his chest showed no evidence of pulmonary Tb., W.R. and Kahn were negative. A white blood count was 12,000 and E.S.R. 30 mm. in the first hour. Biopsy showed chronic inflammatory tissue

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only without evidence of tuberculosis, but a swab showed acid-fast bacilli on direct examination. We did, however, not succeed in culturing the organism. In view of his raised E.S.R. he was treated as a case of active tuberculosis with bed rest at first and was given a three months course of streptomycin and P.A.S. He improved rapidly, his E.S.R. was normal within a month and his throat within six weeks. I heard of him last in *September, 1954*, when he had left Rugby and he then stated that his throat was 100 per cent.

There were no known Tb. contacts in either case, but the second patient's wife developed a pleural effusion in *January, 1955*, four months after childbirth, which the chest physician thought to be almost certainly tuberculous.

Although I did not find any other tuberculous lesions in these two cases it is impossible to be certain that there were no other quiescent lesions present which were cured by antibiotic therapy simultaneously with the pharyngeal lesions.

One may argue that these cases should be called lupus. The rapid onset in both cases with the widespread ulceration without evidence of fibrosis and the resemblance of the lesions with the case who had also pulmonary tuberculosis made me feel justified in calling these cases tuberculosis of the pharynx and to report them to this meeting.

Finally, I should like to thank our pathologists, Drs. Hill, McCullough Wilson and Trounson and the Chest Physician, Dr. Illing, for their invaluable help in the diagnosis and treatment of these cases.

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CEREBROSPINAL RHINORRHŒA ASSOCIATED WITH OSTEOPETROSIS

By A. SEYMOUR-JONES

I FIRST saw this patient on *September 25th, 1956*. She complained that about five weeks previously she had felt that she was catching cold and developed a watery discharge from the left nostril. For the next week she was in bed with a fever and generalized muscular pains, but had no particular headache. The drip continued the whole time, although there had been no true nasal congestion, and has been present ever since. It was worse when she was sitting, standing, or walking about or anxious, and considerably less when she was lying down, although under these circumstances she sometimes felt it drip down the back of her throat. The amount of fluid had not lessened at all. It appeared to be perfectly clear and watery.

She had slight intermittent frontal headache, and this she said had been

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present on and off for many years. There had been no neck stiffness and no fever apart from the first week, and since this initial illness she has been feeling extremely well and there has been no loss of weight.

There was no relevant family history. Twelve years ago she had fallen and fractured the right neck of femur and had subsequently undergone an osteotomy so that she walked with a limp. Two years ago she had a hysterectomy for post-menopausal bleeding, but had been seen by her gynæcologist three months previously and the condition was apparently quite satisfactory.

On examination she was a fit-looking woman who did not look her years. There was slight excoriation of the left nostril, and in the erect position there was a continuous slow drip of clear, colourless fluid. There was a small healed scar anteriorly on the cartilaginous septum on the left side. Her ears and mouth appeared normal. Respiratory, alimentary, and cardiovascular systems appeared normal. Blood pressure was 190/60.

I felt that this fluid must be cerebrospinal and she was examined at the Central Pathological Laboratory, Portsmouth, the fluid being collected directly from the patient, and I received the following report:

Nasal discharge:

Protein: 0·05 mg. per cent.
Chlorides: 738 mg. per cent.
Cells: A very few polymorphonuclears and lymphocytes only.
B.A. Culture: *Staphylococcus pyogenes* and coliforms isolated.
This is almost certainly cerebrospinal fluid.

Blood count:

Hæmoglobin: 84 per cent.
Total Leucocytes: 11,000 per c.mm.
Neutrophils: 6,000 per c.mm.
Platelets present.
W.B.C. and erythrocyte morphology: appears normal.

I then referred her to Mr. Wylie McKissock at the Atkinson Morley's Hospital. I have the following report of the neurological examination:

On admission on *October 18th*, clinical findings were as described. Her mental state was alert and co-operative, correctly orientated in time and space. She was not dysphasic: she was right-handed. The skull showed no palpable bony abnormality, or abnormality on percussion or auscultation. Carotids were equally palpable. There was no bruit.

Cranial nerves: no abnormality was found. There was no anosmia.

There was shortening of her right leg due to her old injury.

The power and tone, posture and co-ordination, reflexes and sensations were quite normal, and her locomotor apparatus in the trunk and abdominal reflexes were active.

Radiography of her skull showed diffuse homogenous increase in density in all the skull bones. There was no widening or thickening of bone present and no evidence of softening. The pineal was not visible. No other abnormality was demonstrated.

Conclusion. Appearances of osteopetrosis. No other abnormality was seen.

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The remainder of the skeleton showed increased density in all bones, much less marked in the bones of the forearms and mid part of the tibiae and fibulae, where it was represented by a series of horizontal bands of dense bone. Appearance also evident in the hands and feet. Osteoarthritic changes seen in both knee joints and in the lumbar and dorsal spine. The lung fields were clear.

Mr. McKissock reported that he would normally have exposed the anterior fossa on the left side to identify the area of C.S.F. leakage, and cover it with muscle and tendon. In view of the osteopetrosis he felt it would be almost impossible to do anything surgical to help her, and felt that the only suggestion he could make would be for particular care to be taken whenever she developed any sort of nasal infection, that she would have to be put to bed on a course of antibiotics without delay.

Osteopetrosis, as described by Albers-Schönberg in 1904, is an anomaly of osteogenesis of unknown origin with a hereditary tendency in which there is failure of the resorptive process resulting in a gradual thickening of the bony cortex with an encroachment of the medullary cavity. The bones include those of the base of the skull, which become dense and sclerosed, while those of the vault remain normal. Only 118 cases are said to have been reported up to 1940. It is frequently associated with orbital and maxillary deformations resulting in progressive proptosis and optic atrophy owing to encroachment on the optic canal, so that eventual blindness is relatively common.

Discussion

MR. J. MCFARLAND said he was delighted to hear these excellent papers and would like to make one or two observations. In Mr. Capps' case the incision was the usual one for a laryngo-fissure and he thought he would draw attention to the fact that lately he did a "J" or "U"-shaped incision for laryngo-fissure because he found that with the vertical midline incision the scarring was considerable.

With regard to pathological reports: in Liverpool he had had a lot of trouble and he was interested to hear of the disagreement among the pathologists elsewhere. At least two cases had been reported malignant when, clinically, he was very doubtful and the second pathologist's opinion was that they were not malignant.

In relation to the big tumours in the larynx it had been his practice during the last five years not to hesitate to incise the cricoid cartilage. When he looked up these things in the books he found that the cutting of the cricoid cartilage was to be avoided if possible. In at least half a dozen cases he had found that it made access less difficult and if the cricoid cartilage was carefully sutured afterwards, the surgeon could not only cut the cricoid but carry out a high tracheotomy at the same time.

In the last case he had of laryngo-fissure he incised the tissues deeply and he sutured a flap of mucous membrane across the gap. Although he had had only one case, there was much less scarring. The larynx would stand a good deal more than one might think. For instance, in De Graef Woodman's operation for

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bilateral abductor paralysis; in half a dozen cases he had penetrated widely into the lumen of the larynx and in all these cases there had been no signs of stenosis or any after complications.

In relation to Mr. Salmon's case, which was most interesting, he had only had one case of arytenoid swelling. He thought it a myxœdematous regeneration and he had operated by a Trotter's approach. He was interested to hear how Mr. Salmon approached his case and he thought that he would have done the same.

There was one question he would like to ask: he noticed a slight swelling of the arytenoid in the picture; with the Woodman incision one often got swelling of the arytenoid. Afterwards, it was difficult for the patients to swallow and he would advocate in all cases the passage of a Ryle's tube.

Regarding the last case, non-specific granuloma of the larynx, he agreed with what had been finally said, that there was nothing to do but to remove the larynx.

MR. CAPPS said he did not think there was very much to reply to. Mr. Salmon's case confirmed his impression that these things are so entirely cellular that they were innocent, they were more like the chondromata which one got on the leg bones. If they came on the upper jaw or the palate they were more likely to be sarcomatous. It was peculiar that they limited themselves to this site in the larynx.

He did not know what Mr. Salkeld's case was, the only one he had had at all similar was a sister in charge of a physiotherapy department with a curious swelling of the thyroid isthmus. It was thought to be tuberculous and she was sent to Dr. Finzi for deep X-ray. That did not appeal to Finzi, who sent her to his department but they could not find very much. The œdema spread and got greater and in the end biopsy after biopsy was taken, but it was never possible to prove any definite histology.

In the end she had to have a tracheotomy; she knew that he was thinking it was malignant and she used to ask about cancer. She was not going to lose her larynx. While he was away she was given a vast dose of antibiotics which had no effect, there was no cortisone then in distribution. She came up to out-patients once more and Dr. Finzi did give her some deep X-ray and the whole thing disappeared. She had been well ever since.

He was so vexed by all this that he got all the sections and took them to Professor Hadfield and he examined the original section and said that although there was giant-cell structure, it was not tuberculous, it was a Riedel's thyroiditis and the swelling in the larynx was due to the lymphatic strangulation. He supposed there was no question of a thyroid swelling before all this started? ("No.") He wondered whether the cortisone therapy being given in Mr. Salkeld's case was adequate. In a recent granuloma of the nose the patient had 50 milligrammes of hydrocortisone twice daily for several months and healed perfectly.

MR. SALKELD said that his patient was having 2 c.c. Cortelan by injection daily.

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MR. CAPPS replied that a big dose must be given if any good was to be done at all.

DR. I. FRIEDMANN thought that there was a great deal of confusion in the field of benign laryngeal tumours, perhaps, entirely due to the nomenclature and vague definitions.

He was in agreement with Mr. Capps' views and has always excluded the so-called vocal cord polypi from neoplastic conditions. In consequence he could not accept Mr. J. P. Stewart's theory that vocal cord polypi were in fact neoplasms or precursors of some tumours of the vocal cord, such as fibroma and angeioma.

He has also been concerned about the confusion which such divergent views, as expressed in this discussion, caused among students. He would, therefore, like to emphasize that vocal cord polypi are not neoplasms but arise as a consequence of a reaction of the stroma to trivial, traumatic or infectious factors. Of true benign neoplasms, the simple squamous-celled papilloma is common. One may encounter an occasional fibroma, angeioma, chondroma and simple adenoma, but these benign tumours of the vocal cord are rare. Keratosis of the vocal cord should, however, not be considered under this heading.

Fibrotic vocal cord polypi have been mistaken for fibromata. Equally, *vascular* vocal cord polypi have been described as true angeiomata which they are not.

He was, therefore, not at all surprised to hear that the pathological diagnosis had not always confirmed the clinical diagnosis. If, as in his hospital, definitions were clarified, then discrepancies need not be great.

THE SCOTTISH OTOLARYNGOLOGICAL SOCIETY

THE seventy-third meeting of the Society was held in the Ear, Nose and Throat Hospital, Glasgow, on Saturday, November 24th, 1956, with the President, Dr. A. Brownlie Smith in the Chair.

A paper on "Ceruminoma" was given by Dr. B. Lennox and Dr. J. M. Johnstone. This was followed by a paper on "Physics and Hearing" by Dr. Lenihan.

Cases were shown as follows:

DRS. J. M. JOHNSTONE, BERNARD LENNOX AND A. J. WATSON

1. *Five Cases of Hidradenoma of the External Auditory Meatus: the so-called "Ceruminoma".* Five cases of the so-called ceruminoma were seen at the Western Infirmary, Glasgow, in an eight-year period. Clinically all began as firm masses obstructing the meatus. Three cases have had recurrences after excision, and one at least will almost certainly end fatally. Histologically, the tumours show great variety in structure, but correspond exactly with the varieties of sweat gland tumours (hidradenomata) seen elsewhere on the skin. As the so-called ceruminous glands, which do not secrete wax, are merely

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