SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY

Friday, May 1st, 1942

President—E. D. D. DAVIS, F.R.C.S.

Cases and Specimens

SPECIMEN OF STENOSIS OF LARYNX AND BRONCHI. By H. A. LUCAS and V. E. NEGUS (shown by Mr. Negus).

The patient had never left this country, but nevertheless appeared to be the subject of scleroma. She had stenosis of both nasal fossae and almost complete laryngeal obstruction at the level of the cricoid cartilage, due to healed and contracted fibrous tissue. Active inflammatory processes, with fibrosis, in both bronchi were the cause of death. The specimen showed the changes in the larynx, also the little projections in the trachea. On the epithelium there were masses of debris which consisted of fibrin, leucocytes and some cast-off epithelial cells.

LIONEL COLLEDGE said that in the autumn of last year this patient came under the care of Professor Pickering of St. Mary's, who asked him to see her. She was wearing a tracheotomy tube, but suffered from attacks of choking which caused great distress. The stenosis of the larynx lay below the cord; but below the glottis the lumen was much less even than the diameter of a quill. The nose showed a granulomatous lesion of sclerosing type on the left side, the pharynx was normal, but the trachea showed a sclerotic condition with stenosis similar to that in the nose and larynx. The diagnosis of scleroma was made with some hesitation because the patient had never left England nor was there any relevant family history. The clinical condition, however, corresponded closely to scleroma, the Wassermann test was negative and no other diagnosis seemed possible. Some relief was afforded by the provision of a wider and better fitting tracheotomy tube, but as repeated demands were made for more active treatment, the patient was transferred to the care of Mr. Negus.

OSSIFYING CHONDRO-SARCOMA OF THE RIGHT ETHMOID. By W. STIRK ADAMS.

Microscopical slides from the frontal sinus and ethmoid of a man, aged 25, who presented himself two months previously with a complaint of diplopia and proptosis of the right eye, noticed in February 1942, accompanied by an aching pain in the right eye on movement of that eye.

Examination in March 1942 revealed, in addition to the proptosis of about 1 cm., that the right globe was displaced downwards and outwards in the orbit

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and a palpable swelling was present under the right frontal bone in the trochlea region. There was no limitation of movement of the globe. Within the nasal passage there was no evidence of tumour.

A radiograph at that time showed a generalized dimming of the right frontal sinus, right anterior and posterior ethmoidal cells and of the right antrum, but no evidence of bone destruction.

His Wassermann reaction was negative.

Hæmatological report: Red blood cells, 5,190,000. Hæmoglobin, 104 per cent. Colour index, 1·00. White blood cells, 7,200.

Differential counts (per cent.): N. polymorphonuclears, 30·0. Eosinophils, 1·3. Basophils, 0·7. Lymphocytes, 65·0. Monocytes, 3·0.

Stained films: No gross abnormality noted in the red blood cells of platelets.

Bacterial examination of mucus taken later from his right frontal sinus showed no pus cells or pyogenic organisms, and there was no growth after forty-eight hours' culture.

My colleague, Mr. Beatson Hird, reported that he had an exophthalmos of 1 cm. in his right eye with 6/12 vision, while the fundi appeared normal.

In March 1942 the swelling under the inner part of the orbit was tender and slightly irregular in outline, but during the following month it became regular and lost its tenderness. The condition was regarded as a neoplasm, and an exploration through an external frontal sinus incision on April 3rd, 1942, confirmed this. The cortical bone over the floor of the frontal was softened and more vascular than normal. On entering the right frontal sinus, polypoid membrane was found with excess of mucus. On the floor of the frontal sinus a mass of new bone formation of soft granular vascular type was found, and this had produced a complete stenosis of the right frontal sinus duct. On lifting the periosteum from the orbital wall of the ethmoid, a similar new bone formation was found, and this had also involved the ethmoidal cells.

Microscopical examination of specimens taken from the new bone formation on the floor of the frontal sinus showed a cellular malignant tumour consisting of spindle cells, polyhedral cells and small hyperchromatic cells, accompanied by masses of intercellular material: it was considered to be a chondro-sarcoma which was in some areas forming new bone. Examination of the new bone formation in the right ethmoidal cells showed an osteitis fibrosa and, at one edge, a few tumour cells could be seen invading the tissue.

Apart from his tumour this man appears well. There is no evidence of secondary deposits, but an interesting point in his past history is that at the age of eleven he had a radical mastoid operation performed on his right ear. The cavity was reasonably satisfactory until 1935, when it became reinfected and he developed a severe attack of vertigo, which persisted for three weeks after the cavity had been cleared of its accumulated debris. This continuous vertigo was accompanied by a spontaneous third degree rotary nystagmus to the left. He remained well for the next six years and free of vertigo, carrying out his occupation as a colliery shunter.

In July 1941, however, his vertigo recurred and his radical cavity was found infected. An impacted mass of debris was removed from the posterior part of the cavity but his spontaneous nystagmus which had recurred continued and was accompanied by a continuous vertigo which prevented him from working.

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Treatment.—His radical mastoid cavity was grossly infected and proved extremely resistant to treatment; so much so that three months later I removed a section from its wall, suspecting malignancy, but on pathological examination the tissue consisted of stratified squamous epithelium and septic granulation tissue only. There were a large number of plasma cells and a smaller proportion of lymphocytes and polymorphonuclears. This infected radical cavity remained under treatment until December, when he was discharged with his cavity healed and dry.

Commentary.—Although there is no evidence to show the exact site of the origin of the neoplasm in his right ethmoid, the extent of its invasion when first seen suggests that a wide area of tissue became involved at the same time. From its extent it is evident that it was present but unrecognized during the time when his right radical mastoid cavity was responding so unsatisfactorily to treatment.

There is no evidence now of invasion of his radical cavity.

Further notes of treatment following the discussion at the Royal Society of Medicine:

On *May 8th*, 1942, a radium plaque was inserted into his right ethmoid and this was followed by a full course of deep X-ray therapy.

July 1942. Recession of the tumour has occurred, though a small fistula is present in the frontal sinus scar. There is a slight decrease in the proptosis and he is now complaining of a blue-mauve colour defect in the vision of his right eye, though his visual acuity remains unchanged.

He has remained physically well and should shortly return to work.

I am much indebted to Mr. Beatson Hird for his assistance in the ophthalmological examinations, to Professor Haswell Wilson in the interpretation of these difficult microscopical slides, to Dr. Peeney for his reports on the cultures and blood picture, and to Dr. Black for the radiological examinations.

(1) Sarcoma of Pharynx treated by lateral Pharyngotomy; (2) Sarcoma of Larynx treated by Laryngofissure. By Lionel Colledge.

The first case was a male, aged 17, seen in *April*, 1938, on account of difficulty in swallowing for two months. Entrance to larynx hidden by large tumour attached to right lateral wall of pharynx. Tumour removed by right lateral pharyngotomy on *April 23rd*. Round tumour with attachment 1 inch in diameter to pharynx excised with a margin of $\frac{1}{2}$ inch of mucous membrane around the area of attachment. Edges of pharynx stitched to skin and the pharyngostome closed by a plastic operation at end of *June*. Microscopic sections show spindle-celled sarcoma.

The second case was a female, aged 56, who had been hoarse for nearly a year when seen in *February* 1941. Left side of larynx occupied by a mass lying chiefly below left vocal cord. Mass was exposed by laryngofissure and removed freely, the right vocal cord being preserved intact. Patient has remained well and good adventitious cord of scar tissue formed on left side. The voice is not quite so good as might be expected from the appearance of the larynx because the sound cord and the adventitious cord are not quite at the same level. Microscopic sections here also showed spindle-celled sarcoma.

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Societies' Proceedings

RADIO-NECROSIS OF LARYNX: TWO SPECIMENS. By LIONEL COLLEDGE.

The first of these specimens is from a male, aged 54, referred by Mr. H. V. Forster in *May* 1939. He had treated patient in previous *December* with radium needles for intrinsic carcinoma of larynx. For about a month there had been pain on swallowing, with intermittent difficulty in breathing and an exhausting and incessant cough. Right half of larynx fixed and glottis much narrowed. Transverse tracheotomy was done and a week later larynx excised. Patient made good recovery. Specimens shows two cartilaginous sequestra in anterior part of larynx. Mr. Benians reports only slight evidence of growth microscopically, but much epithelial hyperplasia.

The second case, male, aged 64, referred by Dr. Ritchie Rodger in *November* 1940. Patient had been treated for growth on anterior half of right vocal cord with radium in *August* 1939. Recurrence observed in *November*; fourteen exposures of deep X-ray therapy administered, and in *June* 1940 radon seeds inserted. Recurrence observed in *October*, and in *November* pronounced stridor, larynx enlarged and swallowing painful. Both halves of larynx fixed and lumen filled with white mass. Transverse tracheotomy done and nine days later larynx excised. Some sloughing followed and a pharyngostome formed which closed slowly. Recently patient reported keeping well and swallowing well. Specimen shows deep ulcer and large slough which filled cavity of larynx. The mucous membrane around the ulcer is still œdematous from the effect of radiation.

V. E. NEGUS said that one gathered the impression that Mr. Colledge was not extremely enthusiastic about radiation therapy; it was encouraging to see the result of operation four years later in one of these patients. The results in the lower pharynx, particularly in the extrinsic type of growth, were not very good under deep X-ray treatment. He had sent many cases for deep X-ray treatment and had had good results in the nasopharynx and tonsillar region, but in the extrinsic type of growth of the larynx and pyriform fossa the results were very poor, and it seemed desirable to go back again to operation. He could not say that he had been as strongly opposed to radiation therapy as Mr. Colledge. There were occasions when such treatment might be found desirable. Previous treatment with either radium or deep X-rays did not mean that operation could not be performed. It had been stated in America that radiation therapy entirely precluded any operation, but he himself had operated on patients who had had such treatment with satisfactory results.

HOLT DIGGLE said that experience at the Christie Cancer Hospital at Manchester was that treatment by X-rays in many of the extrinsic malignant diseases of the larynx was very disappointing. There was a wave of enthusiasm for radium and the younger school were losing the principles of surgical attack which he thought was to be regretted. It had still to be proved that radium offered as good a chance as surgery. Of late they had been shortening their attack on the limited malignant growths of the true cord by adopting the process of contact therapy after removing the thyroid ala, giving exposures of about thirty-five minutes, according to the extent of the lesion, the wound being then sutured up primarily. It avoided a second operation to remove the radium needles as in the Finzi-Harmer operation, considerably eliminated

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the risk of sepsis, and though it was as yet only on trial, the results so far seemed to be quite favourable.

With regard to the surgical approach Mr. Colledge had shown that although the growths had been treated by radiation, still they could be successfully removed by laryngectomy. He wondered whether Mr. Colledge had noted any difficulty in laryngectomy in such cases. Had he adopted any different type of incision or approach ?

W. A. MILL said that these cases were very interesting indeed ; but the term "radiotherapy" had been used of any form of radiation treatment. The difference was not made sufficiently clear between deep X-rays and radium. He had seen many cases treated by both methods. The results of deep X-ray treatment were disappointing in the larynx. On the other hand, he thought that treatment by radium bomb produced extremely satisfactory results. The lesion to be treated in intrinsic carcinoma of the larynx was small and the radium bomb could be directed on to it very accurately. In a few intrinsic cases suitable for laryngofissure or fenestration there was in each case a reason for not operating, and that was why they came for tele-radium treatment. The results had been most satisfactory. Some of the radium people took a great deal of trouble over their cases, and treated them clinically according to the results they saw. That was not done so closely by X-rays. Actual radionecrosis was really uncommon now. The actual instruments for applying the radiation to the site of the disease were being improved all the time.

R. G. MACBETH said that he had put the question to a colleague who was engaged in radiotherapy as to why deep X-ray therapy was not so successful as the radium bomb. The reply had been that the voltage in the average deep X-ray plant was only about a quarter of a million, and that only the million volt unit was comparable with a radium bomb.

F. C. W. CAPPS said that with the million-volt plant good results were being obtained. The results at an earlier stage when the 200 kw plant was used were disappointing. He associated himself with what Mr. Mill had said on this subject. The results he had obtained with the radium fenestration method—the Harmer method—were such that he sometimes wondered whether he ought not to try it in an operable case. During the last five years he had done five cases of radium fenestration ; he spoke particularly of three of these : one, a patient aged 55, in 1937 ; the second, a patient aged 76, in 1939 ; and the third, a patient aged 64, in 1941. None of these would have been suitable for laryngofissure, but he thought they all showed good results with radium fenestration, although, of course, particularly with the last, the time was too short to afford grounds for a definite opinion. All these cases healed by first intention after the radium was put in, and when it was taken out, healing again was by first intention. These three cases were private ones ; the other two, which were not nearly so satisfactory, were hospital ones. In one of them he used radon, because, the time being the early days of the war, he could not get radium, and the dose was all wrong, he did not have the co-operation of the usual people, and had to rely rather more on his own judgment, and the patient developed necrosis of the cartilage. There must be no active radium against the cartilage and every possible precaution must be taken against sepsis. He

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resolved that he would not undertake another case with this treatment in hospital unless he could have it in a private room or cubicle.

LIONEL COLLEDGE said, in reply to the question addressed to him, that one had to adapt the form of incision to the circumstances of the case.

By E. D. D. DAVIS

1. A POST-MORTEM SPECIMEN OF THE LARYNX OF AN INFANT WITH A LARGE SINGLE PAPILLOMA GROWING FROM THE LEFT VENTRICULAR BAND.

An infant of 20 months was admitted to a hospital for bronchitis. The mother stated that it had had "chest trouble from birth". The infant was found dead in its cot early one morning. A papilloma with numerous elongated papillae is attached to the anterior cord of the left ventricular band.

2. A DRAWING OF A LARYNX AND A MICROSCOPE SECTION OF A PAPILLOMA SIMILAR TO THAT OF THE INFANT.

The papilloma was removed by laryngofissure from a man of 63. No recurrence for seven years.

3. A MICROSCOPE SECTION OF A TYPICAL PAPILLOMA 2 CM. BY 1 CM. REMOVED BY LARYNGOFISSURE FROM THE LARYNX OF A WOMAN OF 61.

There was a history of hoarseness for fourteen years, and a diagnosis of papilloma was made ten years ago, but the patient refused operation. When first seen by me on January 1st, 1942, the papilloma filled the orifice of the larynx. An urgent tracheotomy and direct laryngoscopy was done that day under local anæsthesia and evipan. A large piece of the papilloma was removed for section and the diagnosis confirmed.

On *February 9th*, six weeks later, a laryngofissure was performed and the papilloma was found to grow from the mucosa of the anterior commissure below the vocal cords. The growth and the mucosa to which it was attached were completely excised. Recovery uninterrupted.

4. A SPECIMEN OF A LARYNX OBTAINED BY LARYNGECTOMY FOR A SUBGLOTTIC CARCINOMA.

The growth is typical and similar to that of the specimen shown by Mr. Holt Diggle.

5. A POST-MORTEM SPECIMEN OF EXTENSIVE TUBERCULOUS ULCERATION OF THE LARYNX SECONDARY TO ADVANCED PULMONARY TUBERCULOSIS.

There are a number of small excavated and typical tuberculous ulcers on the laryngeal surface of the epiglottis and on the ventricular bands. The distribution of the lesions is also typical and the specimen is shown to contrast it with epithelioma of the larynx.

6. A DRAWING OF A LARYNX TO SHOW A TYPICAL EPITHELIOMA OF THE MIDDLE THIRD OF THE RIGHT VOCAL CORD.

A man of 70. Laryngofissure and complete excision. No recurrence for 12 months. Patient died of carcinoma of the œsophagus.

Section: Squamous or epidermal epithelioma with cell nests.

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7. A Drawing of a typical Epithelioma of the whole of the Right Vocal Cord.

Hemilaryngectomy. No recurrence for twelve years.

8. A Drawing of a Warty Growth of the Edge of the Right Vocal Cord in a Man of 66.

Excision by laryngofissure. No recurrence for seven years. Section: Papilloma becoming malignant.

9. A Drawing of a Snow White Warty (Meadow) Growth of the Anterior Third of the Right Vocal Cord in a Man of 64. Hoarse twelve months.

Excision by laryngofissure. Section: Papilloma becoming malignant. No recurrence for two years. He cannot be traced now.

10. Drawing of an Adeno-carcinoma of the Larynx with Microscope Section.

The case resembled perichondritis. Patient was under observation for seven years and first appeared as a possible case of tuberculous laryngitis.

11. A Post-mortem Specimen of a Secondary Sarcoma of the Larynx.

There is a solid circumscribed growth of the left arytenoid and aryteno-epiglottidean fold. There are secondary growths in the thymoid gland.

The primary growth, a round-celled Sarcoma, was in the cæcum.

12. Four Drawings to illustrate the situation of Carcinomata of the Pharynx.

The drawings have been published in the *Journal of Laryngology and Otology* and elsewhere.

13. A Drawing of a large bi-lobed Congenital Cyst of the Orifice of the Larynx.

Full details published in the *Journal of Laryngology and Otology*, September 1923.

Specimen of Subglottic Carcinoma. By F. Holt Diggle and E. D. D. Davis.

Male, æt. 49.

History.—Hoarseness four months or so. No pain, dyspnœa or dysphagia. Illness began with bronchitis and cough (subject to severe asthma for years). Cough got better but hoarseness developed and increased.

Examination.—Yellowish-white excrescences (very like keratosis pharyngis) invading margin of anterior two-thirds left cord and anterior commissure—similar appearance in middle third of right cord. Right cord normally mobile—left slightly sluggish.

Wassermann—negative.

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8.8.1941. *Laryngoscopy and biopsy.*

Pathologist's report (Dr. Renshaw, Manchester) : " Considerable epithelial proliferation with some attempt at keratinization. The deeper layers appear to be proliferating and there is a suspicion of malignancy."

In view of resistance to treatment and suspicion of malignancy further biopsies and swabs from larynx examined, e.g. :

29.8.41. " No malignancy found in this section."

29.9.1941. " Streptothrix or actino-mycosis not found. Predominant organisms are streptococcus viridans and diphtheroids."

21.10.41. " No growth or yeasts or blastomyces obtained."

Treatment.—Under the belief that it was a case of keratosis laryngis various remedies were tried with no response (e.g. alkaline spray containing sodium salicylate, potass. iodide gr. 20 t.d.s. M. & B. 693). By this time the larynx presented a yellowish film over the anterior two-thirds of both cords resembling a leptothricial or blastomycotic infection. For a time it appeared to improve with NAB ·3 gm. intravenously (two injections) and daily painting with ·1 gm. NAB in 1 c.c. each of glycerine and distilled water with Vin. Antimonialis mm. 5. Response to treatment being slow and varied and as such might be explained by mechanical (daily laryngeal swabbing) rather than specific reasons, a short minimum course of deep X-ray therapy (skin dose 450 " r " three weekly treatments) was given (*February 13th*, 1942). Some slight improvement seemed to follow this treatment but on *March 24th* the patient died from cardiac failure during a severe uncontrollable asthmatical attack.

Mr. E. D. D. Davis (London) said Dr. Vaux (London) kindly examined the specimen. A deep wedge of tissue removed from the region of the middle of the left vocal cord (including the subglottic area) was reported by Dr. Vaux as a subglottic epithelioma with considerable keratinization.

SPECIMEN OF PAPILLOMATA OF LARYNX AND TRACHEA. By T. RITCHIE RODGER.

Patient had laryngeal papillomata as a child and had a tracheotomy tube inserted in a London hospital. He had to wear the tube for five years after which time he was not inconvenienced until in last war he was subjected to mustard gas and dyspnœa recurred. Seen at Hull Royal Infirmary first in 1926, when numerous papillomata were visible on under surface of epiglottis as well as on the vocal cords. From that date removal of growths required at frequent intervals (three or six months) and by 1930 the condition had spread below the cords, necessitating bronchoscopy. In all, bronchoscopy was performed over thirty times, the operation consisting of removal by forceps and also scraping off the papillomata by the end of the bronchoscope. The patient died during induction of chloroform anæsthesia, aged 49.

Questions.—(1) Whether in spite of patient being able to dispense with tube after five years there was still a condition of papillomatosis which persisted and later became exacerbated. (2) Whether the later manifestation was entirely due to the irritation of mustard gas ; (3) or whether mustard gas produces papilloma only in a predisposed individual.

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Royal Society of Medicine

LARYNGEAL PAPILLOMAS. By W. O. LODGE.

A card specimen, consisting of an illustration of laryngeal papillomas was shown by W. O. Lodge, together with the following clinical notes and commentary.

A.H., male, aged 39, had had operations on the larynx in the Middle East in 1941. Early in 1942, he complained of hoarseness again, and was invalided home. He had never been exposed to mustard gas.

Attached to the vocal cords and interlinked in the glottis were a pair of dumb-bell shaped papillomas.

The accompanying plate is a " close-up " of the operation, which was performed under a general anæsthetic, at the patient's request. The diagnosis was verified histologically.

The patient wished to remain in the Army, in the hope that one day he would be free of recurrences.

From the Mayo Clinic it was reported in 1938 that papilloma was still the commonest benign neoplasm of the larynx.[1]

So long ago as 1926 Ullmann, a Scandinavian worker in Vienna, produced papillomas on his own arm and transferred them by inoculation to a colleague.[2] One might have thought that with the recent introduction of the ultramicroscope, in which cathode rays are made to diverge without aberration by field magnets, a virus would have been elicited.

Because papillomas often disappear spontaneously at puberty, œstrogenic hormones have been prescribed ; an account of these experiments appeared in the *Southern Medical Journal* in March 1941.[3]

If we knew the cause of warts we should be one step nearer to the solution of the cancer problem ; meanwhile laryngology has its limitations.

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[2] ULLMANN, *Acta oto-laryng., Stockholm,* 1923-24, v, 317-34.

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CARD SPECIMEN OF LARYNGEAL PAPILLOMAS. By W. O. LODGE.

Mr. HOLT DIGGLE said that these were an interesting group of growths. Many disappeared spontaneously some few months or years after tracheotomy with no other treatment. It was not known why they disappeared spontaneously but we were all familiar with the similar sudden disappearance of skin warts. Could anybody explain this ? Had any member experience of the treatment advocated by Chevalier Jackson, namely painting the growths with rectified spirits ? He personally had tried this remedy but with no success.

J. F. O'MALLEY SHOWED AND EXPLAINED THE USE OF THE FOLLOWING INSTRUMENTS FOR EXPLORING THE MAXILLARY ANTRUM :

1. A tambour for testing the ventilation efficiency of the sinus by connecting it with the cannula of a Lichtwitz explorer after withdrawing the trocar.

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It demonstrates at a glance whether the cavity is functioning properly or not in relation to the air pressure movements normally caused by inspiration and expiration through the antral ostium, as the patient breathes quietly in and out of the nose.

The tambour lever descends on inspiration because air is aspirated into the nose from the antrum and tambour box causing a minus pressure in both spaces, in relation to that of the atmosphere, and the lever ascends on expiration due to air being forced into the antrum and tambour box from the nose, producing a plus pressure.

It is so sensitive that a force equal to the pressure of 4 to 6 mm. of water sets it in motion and this force is sufficient to carry on the ventilation of a normal antrum during quiet noiseless breathing, because the ostium is air patent. Any impairment of this air patency reacts on the functional power of the antral cilia to cleanse the cavity through a partially or wholly occluded opening, leading to retention of sepsis. Hence the importance of this test.

If on air testing a suspected antrum, because an X-ray examination or transillumination shows some lack of translucency, the tambour lever moves up and down regularly on breathing, the ventilation function of the cavity is normal and no products of sepsis will be found on lavage.

If the lever moves imperfectly or not at all, blow some air into the cannula or insert a little sterile water to remove a possible particle of mucus, after first asking the patient to breathe deeply through the nose. If the lever still fails to move one or other of the following conditions may be present :

(*a*) A completely occluded dead or functionless antrum excluded from air movements in which the glandular and ciliary elements have undergone changes similar to those found in atrophic rhinitis.

(*b*) A common septic sinus with much swelling around the ostium.

On lavage type (*a*) is impervious to the passage of fluid through the ostium, but in type (*b*) it will usually escape under the considerable force possible with a Higginson's syringe causing the patient pain, this being absent in type (*a*).

In case (*b*) air test again and if patency returns it is a good prognostic sign for recovery without any major operation.

Further, after an operation the air test will prove the efficiency or otherwise of ventilation through an autrostomy and act as a control over its success or otherwise.

2. Hollow exploring needle with air tap for detecting plus or minus pressures, by connecting it with a small water manometer. This was specially devised to test the theory so commonly advanced in the literature of sinus disease, that the pain complained of is one of excessive pressure inside the cavity, either gaseous or purulent. The writer has been unable to find any increased pressure in such cases, but has found minus pressures and believes that it is a partial vacuum pain caused by repeated nasal sniffing or deep inspirations withdrawing some air contents from the antrum, where the ostium is not completely occluded. In sinus air mechanics inspiration is a greater force than expiration and can withdraw air by aspiration from an antrum or frontal sinus too occluded to admit any expired air. To support this view is the observation that cases complaining of much pain usually show very little pus on lavage and no increased pressures.

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It provides a useful and effective instrument (with or without the tap) for exploring an antrum, to test for air function with the tambour or for lavage.

To introduce, hold the tap end uppermost and pass the point (under illumination) backwards beneath the inferior turbinate for about half an inch, the convexity of the needle being towards the nasal floor.

This should take the point to the thinnest portion of the antro-nasal wall which it enters with very gentle pressure, if the upper end is rotated outwards towards the cheek and brought down to the antero-posterior position.

3. Antrum drill: devised for the purpose of antral thermometry. Temperatures in the antra are always higher than those of the nasal passages and if the latter are markedly obstructed either developmentally or by allergic or vaso motor swelling of the mucous membrane, so as to make the patient an almost complete mouth breather, the temperature in the antrum may be higher than that under the tongue.

This drill may also be used as the first step in an intranasal antrostomy.

4. Long thermometer to pass through the drill tube into the sinus space.

The tambour and antral exploring needle were made for me by Aldred Cox & Sons, 108 Whitechapel Road, E.1.

The antrum drill and thermometer were made by The Medical Supply Association, Grays Inn Road, W.C.1.

MONILIA INFECTION OF PHARYNX AND ŒSOPHAGUS. By MISS I. J. COLLIER.

F. HOLT DIGGLE said that he had seen only one such case affecting primarily and entirely the interior of the larynx. The appearance of the white film in the larynx resembled that of thrush affecting the mouth. All kinds of remedies were tried and although the "Oidium Albicans" was never isolated yet the lesion rapidly disappeared when the interior of the larynx was painted three times a day with an alkaline solution; 15 gr. sodium bicarbonate, 2 gr. glycerine and 1 oz. water.

W. A. MILL said that Mr. Mollison showed a case a good many years ago, about 1937 or 1938, in which all sorts of remedies were tried without success.

R. G. MACBETH said he believed that in Jersey, where monilia infections were common, Dr. H. G. Oliver used to make a vaccine from which he claimed very good results.

The PRESIDENT said that it would be rather interesting if Miss Collier would follow up this case and see what happened later.

CASE FOR DIAGNOSIS—PROVISIONAL DIAGNOSIS: LUPUS OF THE LARYNX. By F. C. W. CAPPS.

Name of patient: Carpenter, Eileen, age 13 years.

Seen at St. Bartholomew's Hospital 10.4.1942 with severe gingivitis and much dental sepsis.

She had had a husky voice for six weeks.

There was also an ulcer on the lower lip.

Tonsillar glands were palpable.

Tonsils were small.

Nose was crusty, but there was no ulceration.

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The larynx was covered with what looked like granulations, no bleeding, no obvious ulceration.

Smear from the gums showed the presence of large numbers of Vincent's organisms.

Sputum was negative for T.B.

Wassermann negative.

The unhealthy teeth were cleared 16.4.1942 and thereafter the condition of the mouth greatly improved.

She is still, however, very husky.

Amplification of Mr. Capps' discussion of the Case.—This case was considered to be primary lupus of the larynx in a young girl. A similar case was shown on *May 6th*, 1932. A girl of twelve with an exceedingly husky voice in whom the whole of the epiglottis, the aryepiglottic folds, the ventricular bands and to some extent the cords, were covered with pale granulations. The skin of the face and the rest of the upper respiratory tract were entirely free of trouble. This child made a spontaneous recovery although there was some destruction of the epiglottic cartilage as a result, but she later came to St. Bartholomew's Hospital with a typical lupus in one nostril.

Negus reported a case in *June* 1931 in which he had had to perform a permanent tracheotomy. This I also have had to do in the only other case which I am certain was lupus in the past ten years. He was a man of between 50 and 60 who also made a spontaneous cure after removal of the tonsils by diathermy, but the resulting scarring of the larynx was so great and he was so uncomfortable and unable to carry on any of his work as a gardener, that a permanent tracheotomy was performed. He has been perfectly comfortable since.

There have not been many cases shown or reported to the Section of recent years. O'Malley showed one in 1932, and the same case after treatment by ultra-violet light in 1933. Suggitt showed an interesting case in *November* 1938, which was shown as a case of tuberculosis of the larynx but which an interesting discussion suggested was really lupus.

Sir StClair Thomson has frequently in the discussions on these cases remarked on the curious geographical distribution which appears quite unrelated to the conditions in which the patients live; for example, it is common in Denmark and almost non-existent in Italy and America. He also thought it commoner in females, and most of the statistics also suggest this. Both the girls shown in 1932 and this girl came from good conditions, the present case living on a farm in the country with no shortage of any sort of food.

I think the Vincent's infection must be regarded as incidental, probably secondary to the very septic teeth.

CASE OF SUPRATONSILLAR "MIXED PAROTID" TUMOUR. By F. HOLT DIGGLE.

F., aged 52 years.

History.—Swelling upper pole left tonsil noticed for three years. Never caused any trouble. Really discovered by dentist who advised her to see a doctor.

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Examination.—Swelling involving upper pole of left tonsil and adjacent soft palate (about the size of a walnut). Mucosa overlying intact and mobile. Consistency—firm in parts and rather rubbery in others. No palpable enlarged glands.

Diagnosis.—Lesion suggestive of endothelioma or mixed parotid type of tumour. Wassermann—negative.

14.2.1942. Operation. The tumour readily shelled out. Technique easy with Boyle-Davis gag and patient in position as if for tonsil dissection.

Pathologist's Report (*Dr. Vaux, London*).—" Two sections consisting chiefly of fibrous tissue and scattered small groups of epithelial cells undergoing mucinous degeneration. The specimen is probably from a ' mixed salivary gland tumour '. There is no evidence of malignancy."

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