SOCIETIES' PROCEEDINGS

NORTH OF ENGLAND OTOLARYNGOLOGICAL SOCIETY*

THE Fifth Meeting of the North of England Otolaryngological Society was held at the Victoria Hospital, Blackpool, on Saturday, June 5th, 1948, Mr. G. E. ARCHER of Manchester presiding.

Thirty cases were presented by Mr. I. B. Thorburn and Mr. A. Finlay Brown.

Cases 1 to 14, were presented by Mr. I. B. Thorburn to illustrate the employment of the Lempert endaural technic in the surgery of the temporal bone.

Cases 1 and 2, epitympano-mastoidectomy for the relief of attic disease with conservation of hearing.

Cases 3 and 4, subcortical mastoido-tympanectomy for the control of chronic middle-ear and mastoid suppuration.

Cases 5 and 6, subcortical mastoido-tympanectomy with complete healing. There had been persistent discharge from hypotympanic and peritubal disease following a previous radical mastoid operation.

Case 7, decompression of the facial nerve in a case of Bell's paralysis.

CLINICAL SUMMARY

Male, aet 62. Left facial paralysis 11 weeks duration. Initial pain left side of head. No herpes reported. Severe deafness in left ear since he had Ménière's disease 25-30 years beforehand.

Examination left ear. M.T. normal. Hears R.V.3″ (masking right ear.)

Vestibular reaction active.

Loss of taste left side of tongue.

Reaction of degeneration present in all segments of left facial nerve.

12.4.48. Operation by endaural route. Facial nerve exposed in tympanic and mastoid portions. No lesion of the nerve observed under 8 × magnification.

12.5.48. Paralysis unchanged.

4.6.48. Brisk galvanic response. Faradic response present in middle group of facial muscles.

Cases 8 to 14. Seven illustrative cases of clinical otosclerosis treated by the fenestration operation.

The detailed notes of investigation, operation and follow-up of 20 consecutive cases treated by the fenestration operation between *July* 1947 and *January* 1948 were also presented.

Cases 15 and 16 were shown by Mr. A. Finlay Brown as a contrast to the above series: one had a modified radical and the other a complete radical

* A decision to commence publishing transactions of the Society was only reached after the meeting, so that a detailed note of the discussion at this meeting is not available.

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mastoid operation carried out by the endaural route using the usual hammer and gouge technic.

DISCUSSION

THE PRESIDENT remarked that following the recent lecture and demonstration by Dr. Julius Lempert at the Royal Society of Medicine, it was appropriate that Mr. Thorburn, who was a trainee of Dr. Lempert, should present this interesting series of cases.

In reply to a question by MR. GEORGE SEED about the after-care of the operation cavity, Mr. Thorburn stated that his routine was to mop out the cavity with 1 per cent. C.T.A.B. (Cetavlon) solution, dry with cotton tipped probes, paint any raw surface with 2 per cent. aqueous solution Gentian violet, and insufflate either 1 per cent. iodine in boracic powder or penicillin sulfathiazole powder. Granulations had sometimes to be removed or cauterized with trichloracetic acid.

MR. F. MCGUCKIN and MR. I. A. TUMARKIN, with regard to Case No. 7, expressed the opinion that the facial paralysis and the reaction of degeneration could well have been due to a virus infection of the geniculate ganglion. This could occur without the presence of observable herpes as in the complete syndrome of herpes zoster oticus, and decompression of the nerve in their opinion did not seem to be rational treatment.

Mr. Thorburn, in reply, stated that he had not considered a virus infection as a likely cause of the paralysis in this case, but had followed the experience of Cawthorne in accepting the presence of a reaction of degeneration as a sufficient indication for operation.

Cases 17, 18 and 19. Mr. A. Finlay Brown. Injection of the inferior turbinates with 5 per cent. Phenol in almond oil for the relief of obstructive turbinal oedema in chronic allergic rhinitis. Mr. Brown remarked that the treatment was easy to carry out and had brought marked symptomatic relief in each case. In one case, presented, a boy aet 15, additional severe asthma had also been greatly relieved.

Carcinoma of the Larynx—Cases XX-XXIV—MR. I. B. THORBURN.

(*XX*)

Mrs. M.H., aet 66. This patient was under observation for 5 years from 1942 to 1947 with keratosis laryngis. Her only complaint was of hoarseness which had been constantly present since 1938. Biopsies of the larynx taken in 1942 showed an active inflammatory hyperplasia but no malignant change. When examined in *October* 1947 there was some laryngeal stridor and a fresh biopsy showed multi-focal carcinomatous changes. On 3.12.47 an emergency tracheotomy was required. On 30.1.48 the larynx was removed using the Chevalier Jackson narrow field technic. The larynx was examined by Dr. F. Yates, Pathologist to the Victoria Hospital, who reports:

> Macroscopically the vocal cord on each side was thickened and whitish. A vertical section was taken through the true and false cords on the right side, at about the middle of their length, after splitting the larynx posteriorly.
>
> Microscopically the squamous epithelium covering the vocal cord shows epitheliomatous change and its more superficial part has been shed. It

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invades the corium in the form of narrow columns of cells which are moderately well differentiated and show some attempt at keratinization. Commencing invasion of the muscle is seen but in the plane of the section it is only very superficial. The character of the cells suggest that the process is of slowly growing type. There is no evidence of spread into the ventricle.

On the review of the earlier biopsies in 1942 Dr. Yates was of the opinion that these sections also showed early malignant changes. Larynx and microscopic changes were exhibited.

(*XXI*)

Mr. L.I., schoolmaster, aet 60. Complained of hoarseness for two years prior to operation. When first examined on 15.11.45 there was restricted movement of the left vocal cord but no induration. The patient failed to report for observation as requested but returned in *August* 1947, when ulceration was observed above the anterior commissure involving the cushion of the epiglottis and spreading over the anterior third of the right vocal cord. The left vocal cord remained fixed but of healthy appearance, whereas the right vocal cord moved freely. A biopsy was taken and reported as squamous carcinoma, the cells varying from poorly differentiated to highly keratinized types. On 19.9.47 the larynx was removed using the Chevalier Jackson narrow field technic and including the removal of the body of the hyoid bone and the pre-epiglottic space. The patient is now leading an active life. He has failed to develop an œsophageal voice but has a clear whisper and states that he has no difficulty in making himself understood. The larynx was exhibited.

(*XXII*)

Mr. A.B., aet 60. First seen 11.3.48 complaining of hoarseness of 18 months duration. Infiltration observed of anterior two-thirds left vocal cord, reaching but not crossing the anterior commissure. Movement not materially impaired. Direct laryngoscopy and biopsy; subglottic extent estimated at 3 mms. Biopsy report : squamous carcinoma. 19.3.48 : laryngofissure, removing whole of left cord and anterior third of right cord. Subglottic extent reached depth of 1 cm. and only a narrow healthy margin was secured. A small gland was removed from cricothyroid membrane which on later histological examination was found to contain a single tumour embolus.

(*XXIII*)

H.J., aet 56. First seen 3.7.46 complaining of hoarseness of three years duration. Larynx showed generalized hypertrophic mucosal changes. Blood Kahn test negative. X-ray chest normal. Direct laryngoscopy and biopsy was carried out three times in the ensuing six months, with a biopsy report of inflammatory infiltration but no malignancy. A fourth biopsy on 25.7.47 was reported as squamous cell carcinoma. The local appearances of the larynx were unchanged and the movement of vocal cords good. The patient was treated during *September* 1947 at Christie Hospital, Manchester, by beam directed small field X-ray therapy. Tumour dose = 5,500 r. There was considerable reaction following treatment with marked oedema of the larynx

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and neck. The reaction had partially subsided after three months, but during the past two months there has been increasing dyspnœa. There is marked epilaryngeal œdema and it is now likely that a tracheotomy will be required.

(*XXIV*)

T.T., aet 62. First seen 27.8.47 complaining of hoarseness of two years duration and commencing slight dysphagia. There was infiltration and fixation of the whole extent of right vocal cord and ventricular band. Biopsy showed a well differentiated squamous carcinoma. Laryngectomy was advised but refused. He received treatment at Christie Hospital during *October* by beam direct small field X-ray therapy : tumour dose 5,500 r. He was not seen again until 19.5.48 when he reported marked improvement for six months after treatment, but increasing dyspnœa, dysphagia and hoarseness in preceding two months. There was marked œdema of the larynx, especially posteriorly where it extended to the hypopharynx. Respiration was badly obstructed. On 24.5.48 a tracheotomy was carried out and feeding started by an œsophageal tube.

DISCUSSION

MR. THORBURN remarked that what impressed him most forcibly was the contrast between the comfortable, well-nourished and cheerful condition of the two patients treated by laryngectomy and the miserable cachectic state of the other two treated at about the same time by X-ray therapy. The unfortunate course in Cases 23 and 24 appeared to be due to delayed cartilage necrosis or perichondritis rather than to an extension of the disease. Up till recently he has thought of laryngectomy as a mutilative procedure likely to interfere seriously with the patient's enjoyment of living, but he has found that both these patients, having once appreciated the need for the operation, the limitations it imposed, and the possibility of any alternative speech mechanism, co-operated well and were amongst the most cheerful patients he encountered in his practice.

MR. J. H. OTTY remarked that perichondritis and cartilage necrosis, as in Cases 23 and 24, was a fairly common and distressing occurrence after radical X-ray therapy for carcinoma of the larynx. He thought that laryngectomy should now be carried out in each case and was the only way to make them comfortable.

MR. H. P. LAWSON remarked that he had seen Mr. Thorburn's two cases of laryngectomy and also the two cases of laryngeal carcinoma treated by X-ray therapy at the Christie Hospital. He agreed with the previous speakers that while the former are cheerful and optimistic, the latter are distressed and in pain with poor voices, and generally cast down, but before concluding that X-ray therapy is unsatisfactory and should be discarded in favour of radical surgery, there are several factors to take into account. Firstly, assuming a case is considered suitable for Ray therapy or laryngectomy, most patients will elect to have the Ray therapy in the hope that the voice will be preserved, and this is understandable ; also a laryngectomy can nearly always be carried out later if necessary, and although more difficult technically, this is not a matter of great moment. The disposition and outlook of the patient must be considered, as after operation a good deal depends on morale ; a depressed

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introspective patient, or one of low intelligence, will not do well with an artificial larynx.

If the carcinoma involves the middle third, or just slightly more of a mobile cord, the Finzi-Harmer operation is ideal: although the dosage of Radium is quite empirical in this operation the end results are far superior to that of any other treatment. Unfortunately, if the cord is not mobile and the neoplasm extends towards the ends of the cord, it is not considered at present that Radium needles used in the Finzi-Harmer manner is a satisfactory treatment, but at the Christie Hospital we have carried out a modified Finzi-Harmer operation with two needles round the anterior angle of the thyroid cartilage for a neoplasm that extends towards the anterior end of the cord, and so far the results have been good.

With regard to more extensive growths confined to the cords, but extending outside the middle third, Contact X-ray technique (Chaoul modified by Lambert) is satisfactory, but is usually followed by a variable period of oedema and some distress, as is also the beam X-ray for neoplasms of a more extensive type. It is the two latter types where laryngectomy as an alternative is to be considered. Here a most important point arises. Are there any palpable cervical glands? If so, a single or double block dissection neck must be undertaken in conjunction with the laryngectomy, or in association with the X-ray therapy. No laryngectomy should be undertaken when, if necessary, a block dissection of the glands of the neck cannot be carried out.

External Frontal Sinus Operations. Cases XXV-XXVIII

(*XXV*). Mr. A. Finlay Brown.

Miss A.J.Y., aet 75. Admitted 9.2.48. History of head cold a week before followed by severe pain over the right eye and forehead. Marked proptosis and downward displacement of right eye: pupil fixed with loss of vision. No infection apparent in the nose, nor on intranasal exploration of frontal, sphenoid or ethmoid sinuses. X-ray showed a large right frontal sinus with medial opacity and a very thin floor.

16.2.48. Exploratory external frontal sinus operation. Large hæmatoma in superior peri-orbital space tracking into the orbital space. The floor of the frontal sinus was paper thin and was removed. The sinus mucosa was healthy but the cavity contained a large quantity of inspissated pus. The fronto-nasal duct was patent and was not disturbed. Penicillin tube inserted and wound closed. Following operation the proptosis subsided quickly. Vision has remained poor. She has remained very well.

Case XXVI. Mr. I. B. Thorburn.

Mrs. M.C., aet 26. Admitted 18.3.48 with acute right sided pansinusitis of five days duration. Marked œdema over right frontal sinus and upper eyelid. No proptosis. Toxic nerve deafness. Fine rubber tubes were introduced to frontal and maxillary sinuses, through which the sinuses were washed out daily and local penicillin introduced six-hourly. Systemic penicillin 50,000 units three-hourly. Bacteriology: staphylococcus aureus, coagulase positive and sensitive to penicillin.

27.3.48. Patient very fit. Still thick pus from antrum.

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Operation : right intranasal antrostomy.

10.4.48. Right antrum clean. No pus in nose. Oedema spreading over anterior wall frontal sinus.

Operation : radical external ablation of right frontal sinus and ethmoidectomy. Bone removal by electrically driven cutting burs so avoiding need to extend skin incision above eyebrow level. Area of osteomyelitis found beyond upper margin of sinus and further bone removal exposed a large extradural abscess. Wound closed without external drainage.

24.4.48. Complete healing. Allowed home.

10.5.48. No œdema. Nose free of pus. Depression deformity very slight.

Case XXVII. Mr. I. B. Thorburn.

Mr. G.R., aet 55. First seen 13.4.46 with extensive firm œdema over left forehead, temple and upper eyelid which had developed gradually during previous month. X-ray examination showed that left frontal sinus was developed laterally to reach temple. Rubber tubes were inserted through floor of sinus medially and at its lateral extremity by an incision in the temple where a subperiosteal abscess was drained. The sinus was washed out through these tubes twice daily for three weeks. Then on 3.5.46 an attempt was made to explore the sinus by extending the temporal incision. Erosion of the anterior wall was found but access proved unsatisfactory.

On 7.6.46 a Killian operation was carried out with radical exenteration of the ethmoid labyrinth. The bridge of bone preserved in the operation has prevented serious deformity. A small quantity of pus continued to discharge by sinuses in the floor and temple for almost two years, but ceased spontaneously a month ago.

Case XXVIII. Mr. I. B. Thorburn.

Miss E.B., aet 26. Admitted to hospital on 25.2.44 having been ill for eleven days with a left pansinusitis. There was gross œdema of left lower forehead and temple, marked proptosis and downward displacement of left eye. Shortly after admission she had a severe rigor.

Operation : Radical exenteration of left frontal sinus and ethmoid labyrinth. Mucosa of frontal sinus completely removed. It was partly necrotic and deeper layer calcified. Posterior wall of sinus was removed to a diameter of $1\frac{1}{2}$ inches to drain an extradural abscess. Wound packed and left open. Left intranasal antrostomy. Wound sutured a fortnight later.

Local abscesses have recurred four times, subsiding quickly with external drainage, but there has been no recurrence for the past seventeen months. There is marked depression deformity over the left frontal sinus with downward and outward strabismus. The vision of the eye is good but she has to wear a shield over it to prevent diplopia. Opinions sought regarding treatment of the strabismus and of the frontal sinus deformity.

Case XXIX. Mr. A. Finlay Brown.

L.P., aet 59. Patient was first seen in *July* 1946, complaining of a soft swelling of scalp, increasing for past three weeks, and now involving the anterior half of the skull vault. Slight headache present but no other upset.

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Patient gives a history of trauma to the left fronto-parietal area. Twice he bumped his head on the windscreen of his car and once on the roof of a bus. Following these accidents a boggy swelling appeared but later subsided, and an X-ray at this time (*June 14th*) showed an area of rarefaction 1½ inches long.

X-ray now shows marked extension of rarefied area with diffuse mottling of calvarium.

23.8.46. *Operation :* Exposure of skull through Coronal incision. Removal of area of bone 3 inches by 4 inches and release of extradural abscess. Severe bleeding from bony margin. Wound closed. Local penicillin introduced through drainage tubes in separate stab wounds. Penicillin I.M. 40,000 u. three-hourly. Three pints Group O blood.

30.8.46. Wound healed. Tubes and stitches out.

3.9.46. Discharged.

Two weeks later the wound broke down and from then on various collections of pus were released from the parietal regions. In *December* 1946 further removal of diseased bone was undertaken and again in *January*. These operations resulted in the removal of the greater part of the vault of the skull.

The last removal of bone was done in *February* 1947, since when the patient has continued to attend for dressings, incisions and drainage round the scalp for evacuation of further collections of pus. These gradually became less and when seen in *November* 1947 the whole scalp was well healed.

At present the patient is very well, has put on two stones in weight and is free from all headaches.

An appreciable amount of bony regeneration has taken place.

A series of X-ray photographs showing progress of the disease and extent of bony removal were shown.

A similar case which had survived for many years was quoted by the President.

Case XXX. Mr. A. Finlay Brown.

L.J., aet 27 years. 14.4.47. Painless lobulated swelling over left upper jaw of three months duration. Tooth extractions eight weeks and three weeks ago. Hard mass present over left canine fossa. ? Dental cyst. Infiltration of left cheek (submucous) by firm, ill-defined rubber-like tissue. Similar condition of sublingual mucosa. X-ray left upper jaw. " Fractured roots in iv with inflammatory process on apices. Small bony sequestrum in alveolus of vi." Referred to Dental Surgeon.

28.4.47. Kahn test negative. Lavage left antrum negative.

30.4.47. Biopsy taken from cheek. Report : " The condition would appear to be of chronic inflammatory character. No evidence of malignancy." Patient was not seen again until 6.10.47.

6.10.47. Condition of mouth unchanged. Kahn and W.R. negative, Patient now discloses the appearance of a swelling about the size of a duck's egg in the left groin. It is painless, smooth and of rubber-like consistency. Patient referred to Surgical Department, where it was noticed that no other glandular swellings were present.

18.3.48. Removal of gland (Mr. Lennox) and biopsy. Report : " The microscopical appearances are those of lymphadenoma."

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