SOCIETIES' PROCEEDINGS

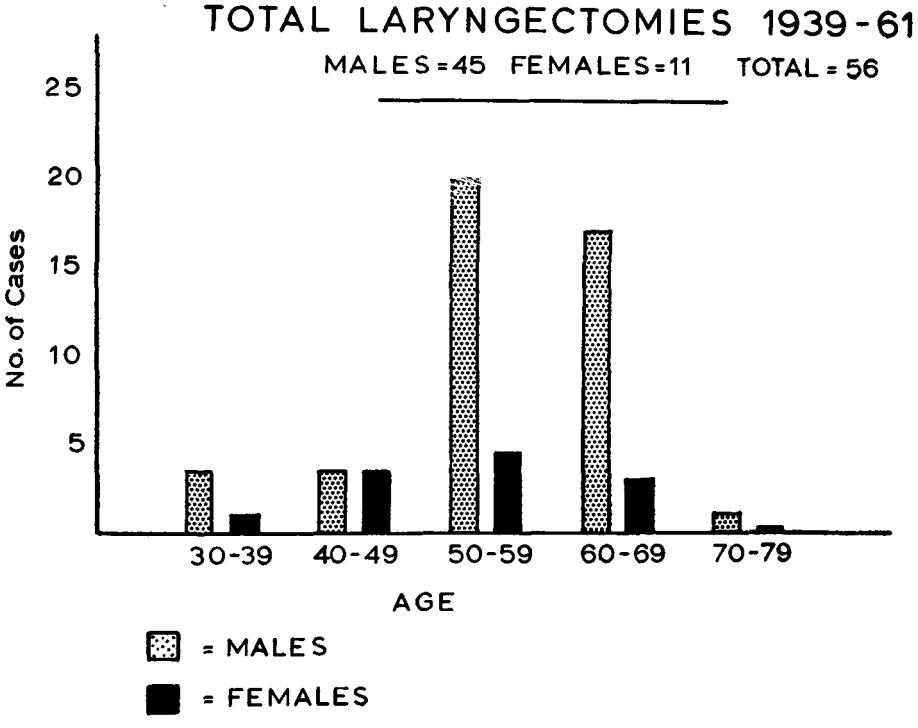
THE SCOTTISH OTOLARYNGOLOGICAL SOCIETY

THE Eighty-Third Meeting of the Society was held on Saturday, 25 November, 1961, at the Victoria Infirmary, Glasgow. The President, Dr. R. P. Mathers was in the Chair.

A paper was presented by Dr. T. O. Howie on the "Results of Total Laryngectomy".

I would like to report as briefly as possible, the results, in this hospital since December 1939, of operation by total laryngectomy for cancer of the larynx. These cases were all considered to be in too advanced a state to be treated by laryngofissure. Either the cord was fixed by invasion of the deeper tissues or there was an involvement of both cords, which made removal by an extended laryngofissure operation impossible.

Total laryngectomy has been carried out in fifty-six cases. There has been no operative mortality. This histogram shows the distribution of cases in sex and age groups:



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I have always held that the most thorough pre-operative examination seldom gives the full picture of the extent of the disease. It is only when the larynx is split, either in laryngofissure or after removal by laryngectomy, that a true assessment of its limits can be reached. Only then can one see the whole lesion and see whether it has invaded the ventricle or passed into the sub-glottic region. The tissues can then be palpated and the extent of any infiltration can be estimated.

Some cases among my patients, which had been considered suitable for treatment by laryngofissure, have been found to have disease which could not be eradicated by this simple operation and a total laryngectomy had to be carried out.

I am sure that the radiotherapist has no idea of the extent of the lesion he is attempting to treat.

In dealing with my cases I have tried in the first place to estimate their suitability for laryngofissure. I have seen all biopsies in histological sections, with the pathologist, to get the impression of the type of cancer we are faced with.

A fair indication of its invasiveness can be obtained.

If there is fixation of the cord, or there is obvious supra or sub-glottic extension, or if the disease is in the epiglottis or aryepiglottic fold, then laryngectomy is proceeded with. In very young patients with an invasive type of lesion I am sure any border-line cases are better treated by total removal of the larynx.

When the larynx is removed it is split posteriorly to give the best view of the lesion. After careful assessment of the distribution of the disease, the larynx is sent immediately to the Clinical Photographer for a coloured record of the specimen.

If the disease is found to be confined to the true cord with no supra or sub-glottic extension, I usually decide to use no further treatment, unless the lesion shows poorly differentiated cancer and is likely to infiltrate rapidly and extensively.

If there is supra-glottic or sub-glottic extension—if the disease is on the epiglottis or on the aryepiglottic folds—if the biopsy shows a high Broder's grading and if there is no obvious glandular involvement, *then* I arrange for post-operative radiation. This must be carried out to the fullest possible extent. It should cover the whole glandular drainage area.

I am quite certain that cancer cells, lying in the lymphatics leading to the glands, before those glands become palpable, are highly vulnerable to radiotherapy. When one considers the chances of glandular invasion in supra- and sub-glottic disease, I think our figures which I will give you later, justify our conclusions. Radiotherapy is of no use alone when the glands have become palpable. These must be removed by block dissection. Post-operative radiation may be of help. The glands may be removed at laryngectomy, but if there has been pre-operative radiation with much post-radiation atrophy of the skin and underlying tissues, it is better postponed until the laryngectomy wound is soundly healed.

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I will now show you the table of our results. The pre-operative radiation cases and the cases with glandular involvement are too few to be of any statistical value.

	Group 1	Group 2	Group 3	Total
No. of cases	17	7	21	45
Died > 5 years. No recurrence	4	2	3	9
Followed for 5 years	13	5	18	36
Died of recurrence	2	3	6	11
5 year survivals	11	2	12	25
% Survivals..	84·6	40·0	66·6	69·4

Group 1—Cases treated by surgery alone.
Group 2—Cases treated by radiation pre-operatively.
Group 3—Cases treated by radiation post-operatively.

CASES WITH GLANDULAR INVOLVEMENT

No. of cases	4
Died > 5 years. No recurrence	1
Followed for 5 years	3
Died of recurrence	2
5 Year survivals	1
% Survivals	33·3

At the conclusion of his paper Dr. Howie showed a film demonstrating rehabilitation and training of patients in œsophageal speech.

In the clinical proceedings of the meeting seven cases were shown by Dr. T. O. Howie, six by Dr. D. Brown Kelly and five by Dr. J. C. Simpson.

The following were of special interest.

CASE II

Reconstruction of congenital absence of external auditory meatus. A male, aged thirty, reported in *June 1960* with a mal-formed left ear and almost complete unilateral deafness. The right ear was normal. At operation cartilage was found completely filling the entrance to the meatus but no bony meatus was identified. Exposure of the antrum and removal of bridge revealed malleus and incus fused but mobile. The stapes was not seen. The whole cavity was skin grafted. At first dressing the patient's hearing improved considerably.

Mr. Gibb remarked on the fact that no view of the stapes had been obtained in order to check its mobility, although it was an excellent result.

Mr. McNaughtan observed that fused ossicles were joined to the stapes mainly by fibrous tissue and these cases require to be fenestrated. Dr. Colman was impressed by the benefit obtained by the patient since the deformity was unilateral, and enquired whether any special difficulties had been encountered in the operation. Dr. Howie said there was not much difficulty. There was no way through into the middle ear except through the anterior wall of the antrum. There was no tympanic plate anteriorly and exploration was stopped when the incus was exposed.

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CASE VI

Carcinoma of Larynx treated by radiation, followed by laryngectomy. Mr. S.N., aged fifty-four, was first seen in another clinic in *March 1959*. X-ray therapy was given in *December 1959*. When examined by Dr. Howie in *February 1961*, he was dyspnœic. Direct examination showed fixation of the left side of the larynx and considerable extension to the sub-glottic area. Following total laryngectomy and secondary closure of a fistula he has a useful œsophageal voice and has returned to work. Discussion of this case was combined with a discussion on Dr. Howie's paper.

Dr. Dixon said that in some patients who have had therapy suspicion arises that the tumour is still active and an exploratory laryngo-fissure is necessary to obtain a positive biopsy.

Dr. Russell commented on the high percentage of females in the series. He wondered why patients were given radiation post-operatively rather than block dissection carried out, in cases of sub-glottic carcinoma with impalpable glands. Dr. Howie thought that block dissection was unnecessary in these cases, since any recurrence after proper therapy covering the whole drainage area seldom showed in the glands. It was mostly in the trachea or hypopharynx.

Dr. McKinlay congratulated Dr. Howie on producing such a magnificent series of cases. He was particularly impressed by the salvage rate of failed radiotherapy cases, 40 per cent. five year cases in Group 2. Where laryngectomy is chosen as the primary treatment he felt that prophylactic block dissection should be done at the same time.

Dr. Young endorsed all that had been said about Dr. Howie's work in this field and added that the first laryngectomy in Glasgow was done by the late James Adams.

Dr. Land and *Dr. Connal* referred particularly to Dr. Howie's work in speech rehabilitation which had rendered a mutilating procedure more acceptable.

CASE VIII

Congenital Absence of Incus. The patient, J.N., aged fourteen, had a history of deafness in the left ear for eight years with no history of ear trouble, injury or familial deafness. Clinical otosclerosis was suspected. Exploration by the Rosen approach revealed a mobile stapes with an atrophic head and a very thin stapedius tendon. The incus was absent. The drumhead was mobilized and applied to the stapedial head. Audiograms showed a gain of twenty decibels.

CASE IX

Congenital abnormality of Right Incus, absence of Left Incus. Mrs. E.T., aged thirty-six, had been deaf for several years when seen in *1956*. Operated on by Dr. Rosen who found a gap between a shortened long process of incus and the stapes. The stapes was mobilized and meatal tissue inserted in the gap. In

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December 1956, the right ear was opened, but no incus could be seen. The stapes was mobile. The drumhead was applied to the stapes but the effect on hearing was negligible.

The subsequent discussion of these two cases showed that some doubt was felt about the true congenital nature of the deformities. Case VIII, had later given a vague history of a slight head injury which Dr. Lumsden thought might have caused a secondary traumatic necrosis. In Case IX, Dr. Smith noted that the patient had a tuberculous glandular scar on the right side of the neck and had a discharging ear. He wondered if this was not a case where there had been a bilateral infection at an early age and the loss of the incus arose from a chronic inflammatory condition. Dr. Hutchison reported two cases in which the incus was absent with no evidence of any previous middle-ear inflammation.

Dr. Brown Kelly pointed out that in Case VIII the accompanying change in the head of the stapes which was rounded and atrophic did not suggest an acquired condition due to injury. In Case IX, he thought that one could not dismiss an infective cause for the condition but the fact that the incus should vanish altogether on one side when she did not have discharge for a long time was difficult to explain.

CASE XVI

External swelling of right frontal area corrected by reflection of scalp flap and multiple infracture of the anterior sinus wall. Miss E.S., aged nineteen, was seen in *October 1960*, with a hard bony deformity of thirteen years duration affecting mainly the right frontal area. Nasal obstruction and frontal headaches were present for some years. Sinus X-rays revealed infection of the left antrum which persisted after repeated antrum lavage and intra-nasal antrostomy in *March 1961*. The nasal infection cleared after radical antrostomy in *May*. Frontal osteoplastic operation performed in *September* and multiple linear fractures made in the expanded area of the frontal bone, the plate being displaced inwards to correct the deformity. A shelf of bone required to be removed from the rim of frontal bone to allow refitting of the flap. Convalescence was uneventful and the deformity almost completely corrected.

Dr. Simpson was unable to explain the pathology in this case and asked for suggestions.

Dr. Farquharson thought the condition might be secondary to a hæmatoma under the periosteum or new bone formation following trauma.

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