SOCIETIES' PROCEEDINGS

THE SCOTTISH OTOLARYNGOLOGICAL SOCIETY

THE EIGHTY-NINTH MEETING OF THIS SOCIETY WAS HELD IN THE ROYAL INFIRMARY, EDINBURGH ON SATURDAY, 21ST NOVEMBER, 1964. THE PRESIDENT, DR. H. D. BROWN KELLY, OCCUPIED THE CHAIR.

The programme begun with a film by Mr. A. Finlay Brown entitled "The Treatment of Chronic Destructive Ear Disease by Suction". This film was of the usual high standard which has made the name of Mr. Finlay Brown so notable in surgical photography. In it he showed clearly that in certain cases of progressively destructive middle-ear disease repeated suction clearance under magnification offers a very satisfactory alternative to surgery; in some cases not only was the disease eradicated but closure of the middle ear occurred with the formation of an adventitious drumhead.

In the discussion which followed the film congratulations to Mr. Finlay Brown were expressed from all parts of the meeting and were epitomized by the President. In addition Dr. Alan Gibb expressed concern that the term "Keratin" was being used in the course of the film for the generally accepted "Cholesteatoma"; he wondered if the well-known North of England Club had changed its name to "Keratin Club".

Mr. Gibb also recalled that the initiator of this form of treatment is Louis Verhoyen who had a patient, a nun with chronic destructive middle-ear disease. She utterly refused his advice of radical mastoidectomy, but pled with him to continue treating her ear. He tried repeated suction clearance and was greatly surprised at the good result obtained.

Then followed a demonstration by Mr. R. Thomas of his apparatus for ear photography. In his introductory talk Mr. Thomas stated that his interest in the photography of the ear extended over many years. In 1956 he had persuaded a British optical firm to make an apparatus but this was not put on the market. Since then an American firm had done so, and the price is about £3,000. Another difficulty is that there is no standard camera available generally in hospitals and so Mr. Thomas like Mr. Finlay Brown has preferred to make his own equipment. The details were summarized as follows:

1. Single-lens camera—this is rather expensive.
2. Extension tubes.
3. Minus 18 to 20 diopter negative lens.
4. Mirror set at angle of 45 degrees.
5. Car head-lamp bulb and adaptor.
6. Another lens from an old microscope.
7. Electronic flash outfit.

Mr. Thomas finds patients, particularly children, to be quite tolerant of the

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prolonged sessions sometimes necessary in otoscopy with photography. He concluded with a display of colour slides of the drumhead in various conditions.

The President congratulated Mr. Thomas very heartily on his clear yet light-hearted talk, his mechanical skill, and on the technical excellence of his photography.

In the discussion and expressions of thanks which followed, Dr. A. Brownlie Smith asked the reason for the high diopter negative lens. Mr. Thomas explained that it is essential to get a large enough picture. Mr. Kenneth Maclay suggested a method of overcoming the generally admitted difficulty of getting enough light into the ear, namely use of a plastic speculum which itself would conduct the light from the flash apparatus.

Discussion then took place on the cases of patients who had previously been in attendance; this clinical demonstration was arranged by Dr. A. Brownlie Smith, Dr. R. B. Lumsden, Dr. J. Malcolm Farquharson, Dr. G. D. McDowall, Dr. J. R. McCallum, Dr. Kenneth McLay and Dr. W. J. Newlands.

The first case was a female of 54 with a history of right-sided tinnitus for six years; she was found to have a small red pedunculated mass within the lower part of the right middle ear which proved on removal to be a glomus jugulare tumour; simple removal at tympanotomy on *6.1.64* with replacement of the intact drumhead had apparently cured the condition. A later exploratory tympanotomy had been entirely negative and no bone destruction was found on tomography. A histological slide was shown. In the discussion Dr. McLay recalled an exactly similar case in which simple removal had apparently brought about a cure.

The next case was a male of 40 years, who had been under observation since 1961 when he had a polypoidal malignant melanoma of left lateral wall of the nose treated by local removal and diathermy. The tumour had recurred in a node in the submandibular region which was treated by block dissection on *8.5.64*. No further recurrence had appeared and the patient remained quite well to date.

A good deal of discussion resulted from a case of mumps labyrinthitis in a young man in which mild parotitis had been followed in forty-eight hours by tinnitus, severe vertigo and progressive deafness in the left ear; later orchitis also developed. The diagnosis was confirmed by complement fixation tests at the Virology Laboratory. The final state was complete unilateral loss of hearing and vestibular responses. Dr. E. G. Collins and others agreed that most cases of mumps labyrinthitis were unilateral, but Dr. Farquharson and Dr. Weir both had seen cases in children of total bilateral deafness following mumps.

Dr. Smith also showed a case of unilateral deafness caused by dislocation of the incus and a case of bilateral otosclerosis treated by stapedectomy on the left in 1961 with fat wire prosthesis and on right in 1963 with fat graft and interposition. The results were equally good on each side; Dr. Smith emphasized that in doing the interposition he had not cut the stapedius or dislocated the joint; thereby he hoped to avoid avascular necrosis of the incus. Dr. I. S. Munro remarked that he need not worry about that as in Schuchknect's series only three out of 3,000 had necrosis of the incus and these were probably due to sepsis not avascularity. Discussion also took place as to the indications for operating on the second ear; Dr. Smith stated that at least a year's interval

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should be allowed except in the over fifty age group. Dr. Thomas considered that only in these older cases should the second ear be touched at all.

Dr. R. B. Lumsden and Dr. G. D. McDowall together showed a case who had originally been seen by the Society in 1950. The patient was now 68 and had keratosis of the larynx treated by excision at laryngofissure in that year; recurrence in 1956 regressed spontaneously but in 1961 early malignant change occurred which was treated by Megavoltage radiotherapy; since then the condition had remained static. Dr. Lumsden explained that the original surgical intervention had been done as a result of Mr. Munro Black's plea for more active treatment of keratosis, which he made at the Royal Society of Medicine in 1950. In this case, at least, this had not been entirely successful. Dr. Farquharson expressed the opinion that if one is to be really active one should do a laryngectomy—anything less than this was no better than simple cord stripping and conservative management; in particular radiotherapy for keratosis in his experience was particularly unfortunate. It was generally agreed that the treatment of keratosis of larynx was beset with difficult decisions and had to be adapted to each individual patient.

Dr. Lumsden's next case was a severe Ménière's disease in a male of 52 years. In *April 1952* he had carried out Ultrasonic application with the normal reactions achieving complete loss of caloric responses in the affected ear without change in the hearing. Nevertheless vertiginous attacks recurred one and a half years later—at this time there was no caloric response, the hearing was unchanged and the tinnitus improved. On *6.1.64* he carried out surgical destruction of the labyrinth by the fenestration technique. Post-operatively transient vertigo, nausea and paralytic nystagmus occurred with total deafness. Patient symptom-free to date.

Dr. Lumsden directed attention to histology of the material removed from the lateral canal. He also stated this was not the only case in which vertigo had recurred after an apparently successful labyrinth destruction. Dr. Gibb, Dr. McLay and Dr. Brownlie Smith all had similar experience; all agree that the labyrinth was very difficult to destroy completely. Dr. J. Fulton Christie suggested that although it is easy to destroy the lateral canal, the posterior vertical canal might be more resistant to any method of surgical trauma.

Dr. J. R. McCallum showed a case of labyrinth destruction carried out through the oval window by the usual Rosen approach. Dr. Finlay Brown and Dr. Brownlie Smith agreed this was a very good surgical approach.

Dr. Lumsden also showed a case where at the operation of stapedectomy with fat wire prosthesis the incus had fractured on closing the wire loop; he remedied the situation by substituting a polythene strut from the malleus to a fat graft. This had proved a very difficult procedure but the audiograms shown demonstrated a worth-while improvement in hearing. The President offered his congratulations.

Dr. Lumsden's next case was unilateral choanal atresia in an adult of 47 in whom it had been quite practicable to elevate the mucosa from the obstructing bone in continuity with an SMR of septum and so remove it with the spur. Dr. Lumsden did not advocate this method in all cases but only where the nasal passage was roomy enough to enable the atresia to be clearly seen. Dr. Birrell said he had never had to use a transpalatine approach and described his technique

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in dealing with children and babies. Dr. Collins thought it remarkable that this particular patient had not sought advice earlier.

Dr. Farquharson showed a case of troublesome vertigo on head movement following an attack of acute otitis media fifteen months previously. He attributed the vertigo to undue mobility of the stapes revealed at exploratory tympanotomy. He had placed a thin layer of temporal fascia over the incudo-stapedial joint. Post operatively there had been no vertigo to date and she could now move the head freely.

Dr. Farquharson's next case was a woman of 55 who had a carcinoma of the left middle ear in 1958. Dr. Farquharson stated that in most cases of this rather rare condition the tumour presented as redundant granulation in the middle ear with a long history of previous suppuration, whereas in the present case there had only been a pin-hole perforation and swelling of the meatal wall posteriorly. At operation two months later the tumour tissue was found to extend from the floor of the middle ear right into the antrum involving the posterior meatal wall and facial nerve; it was entirely encapsulated although histologically reported to be an undifferentiated squamous carcinoma. Radical mastoidectomy was followed by radiotherapy and the patient remained well to date. Dr. I. S. D. Thomson commented that facial nerve grafting might have achieved a more satisfactory result than the fascial sling which had been used subsequently in the present case in dealing with the facial palsy.

Dr. Farquharson also had a case of total agammaglobulinæmia, the patient, a woman of 44, was too unwell to attend the meeting. She had the expected history of very frequent respiratory infections resulting in bronchiectasis, otitis media, and sinusitis. The definitive diagnosis had been made only when blood was sent for grouping pre-operatively; although her red cells were Group A the serum contained no anti-A or anti-B agglutinins. A very detailed investigation had followed and Dr. Toothill of the United Birmingham Department of Experimental Pathology had reported, "This is only the second time we have been unable to detect gamma-globulin." Dr. Fulton Christie also commented on the extreme rarity of the condition and quoted Sir Edward Wayne's statement that only thirty such cases were known in the whole of Britain.

Dr. Kenneth McLay's cases were then discussed—the first three presenting as swellings in the neck.

The first was a girl of 5 with a cystic lymphangioma of the neck—the history was unusual in that it was of three days' duration and had followed an injury. After a period of observation Dr. McLay had explored the neck and removed the mass, consisting of multiple cysts adherent to the sterno-mastoid and the structures of the carotid sheath—removal was thus very difficult, a finding which did not surprise the President and Dr. Birrell, who had had similar experiences.

The second was a man of 42 who had presented with nasal obstruction due to polypi, but was also found to have a swelling (2·5 cm. in size) in the left parotid; this was considered on clinical examination to be a salivary adenoma but proved on removal to be Hodgkin's disease of the lymphatic tissue within the parotid. At the time of operation several upper cervical lymph nodes were palpable and one of these also showed Hodgkin's disease. Treatment with radiotherapy had given a good response so far.

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The third case was a man of 69 who had been found to have a smooth hard swelling of the left tonsil which proved to be a reticulum cell sarcoma. This had responded well to radiotherapy but a diagnostic problem was posed by a large swelling of the right lower neck displacing the larynx to the left and the carotid sheath to the right. The patient averred it had been present for 25 years. Dr. A. Gibb suggested that it was a thyroid adenoma and should be left untouched.

Dr. McLay followed with a case of bilateral conductive deafness, progressive over a year, in a woman of 50 who first attended in *November, 1963*. Both drumheads had been seen to be pale and bulging; Eustachian inflation gave good air entry but only achieved increase in the bulging. On *28.11.63* bilateral myringotomy was carried out and very little fluid obtained, but the impression of adhesions was gained. The hearing continued to deteriorate and as the drumhead on the right had not healed completely Dr. McLay had explored the right middle ear with a view to fascial repair. The incus and superstructure of the stapes were found to be absent and Dr. McLay restored ossicular continuity with a polythene strut between the malleus and the mobile footplate. A considerable hearing improvement resulted—audiograms were shown. Dr. J. R. McCallum asked how such a pathology could have arisen with such a relatively short history. Dr. McLay said there was no clear answer to this, but that he had to assume an inflammatory process which had gone on to erosion of bone and fibrosis. Dr. Thomson, Dr. Finlay Brown and Dr. Gibb then discussed the more general topic of what caused the bulging of the drumhead in such a case as this, and it was thought to be related to the common phenomenon of apparent pushing up of the drumhead after stapedectomy. The President suggested gas secretion by the middle-ear mucosa and said that for a long time he had been trying to get his anæsthetist interested in the problem—so far without success.

Dr. McLay's next two cases were considered together, viz. bilateral congenital middle-ear deformities in children aged 4 and 7. The former had also multiple skeletal deformities with spasticity and probably mental retardation related to the maternal medication with thalidomide. In both cases one meatus was patent and the other grossly stenosed. In each case the patent ear had been explored and somewhat similar findings obtained, viz. a bony mass representing malleus and incus fused together and held rigid by bars of bone which were removed in the course of the operation; in each case the stapes was represented by a single rod—in the thalidomide child the stapedial artery was still present and the footplate ankylosed; in both cases a mobile chain had been restored with some demonstrable improvement in hearing.

Dr. I. S. D. Thomson recalled that in Aberdeen he had encountered three thalidomide children in which the aural deformities were more severe, no vestibular fenestra and no stapes being present. Dr. Birrell mentioned the small Edinburgh series and showed slides of them; they were in ages between 2 and 3 and, although thalidomide cases, had no other deformities. Dr. Birrell discussed the difficulties both of operations and fitting hearing aids in these cases. Dr. Lumsden and Dr. McNaughton both were in favour of early conservative operation with the purpose of creating a skin-lined meatus so that a hearing aid can be satisfactorily fitted; further surgical exploration can then be done later; both paid tribute to the work done by Mr. Gavin Livingstone in this field.

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Dr. W. J. Newlands presented a case of Essential Hypercholesterolæmiac Xanthomatosis with involvement of the pharynx. The patient was a 73-year-old female who had presented 15 months previously with nasal obstruction. This was found to be due to Xanthomatosis involvement of the retropharyngeal tissues in relation to both naso- and oro-pharynx. The soft palate was pushed forward—the larynx was normal. Removal of nasopharyngeal tissue relieved the nasal obstruction while Atromid successfully lowered the blood cholesterol. The patient remained improved; "details of blood chemistry and microscope slides of the Xanthoma were shown". Dr. Newlands commented that the condition was believed to be the result of increased cholesterol metabolism, the site of this being the liver. Laryngeal involvement, frequently necessitating a tracheotomy, is common in such cases; the present case was particular in that the larynx was entirely normal.

The President then declared the meeting closed.

ROYAL SOCIETY OF MEDICINE—SECTION OF OTOLOGY

March 5th, 1965

PROFESSOR D. F. N. HARRISON: We have listened today to two erudite and informative papers. There are, however, several aspects of this interesting condition which I feel might be considered in further detail.

It was Dr. Haddow of Entebbe who first commented that this condition appeared to be limited to certain areas in Africa where the altitude was less than 5,000 feet, a yearly rainfall of more than 20 inches and where the temperature did not fall below 60°F during the coldest season of the year. This geographical distribution also corresponds with that of some mosquito-borne diseases, and this has led to the suggestion that the tumour might be of virus origin, perhaps carried by an arthropod vector. A virus, antigenically related to reovirus 3, has in fact been isolated from a case of Burkitt's lymphoma!

If these "geographical postulates" are really important, then it might be of value to consider whether there are other regions in the world where similar climatic conditions exist. Map B showing mean temperatures and rainfall throughout the world, demonstrates that in both the northern part of South America and in Indonesia there are regions which match the conditions found in Central Africa. Maps showing annual rainfall and the presence of mosquitoes also confirm these features and thus one should consider those regions as potential habitats for Burkitt's lymphoma. ten Seldam has found some cases in New Guinea (1960) and as this country is explored further, more patients may materialize. However, an American expedition into the Panama Canal zone

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