After the patient's death I elicited from his wife the following information: About fifteen years ago he had suffered from a very severe neuralgia for three weeks on the right side of his neck, which "shot from his neck to the top of his head." He was kept in bed by his medical attendant for perhaps three days, and off his work about a week. Neither he nor his wife was able to account for it. His ear was not affected at that time. So far I have been unable to communicate with the doctor who attended him at the time. Our impression is that the process of venous obliteration commenced in the neck at that time, and gradually extended without symptoms until the left lateral sinus became involved. In this, as in the previous case, my best thanks are due to Mr. W. E. Jones, our senior house-surgeon.

AUDITORY RESULTS OF REMOVAL OF POST-NASAL ADENOIDS : MODIFIED OPERATION.

By DAVID McKEOWN, M.A., M.D., MCH. (MANCHESTER).

THE hearing, the author said, is found within a few days after operation to be improving, and it appears to be taken for granted that the improvement is continuously progressive until the final result is reached, and that the final is the best. Such teaching is incomplete, and is to be supplemented by two facts. Firstly, in a large number of cases the hearing is found immediately after operation to be much improved. Secondly, the final degree of improvement from the operation may not be the best obtained.

Particulars were given of a number of cases showing the immediate improvement; the difficulties of explaining such improvement from the standpoint of the commonly-accepted theory of adenoid deafness—viz., the suspension of the ventilating function of the Eustachian tube from catarrhal obstruction, or from paresis and interference with the action of the levator palati and salpingopharyngeus—were considered, and particulars were given of a case which indicated that that theory did not cover the whole ground.

A lad, aged thirteen, had a perforation of about one-third the area of a threepenny-piece in the right membrana tympani, behind the handle of the malleus; there was a history of otorrhœa dating from an attack of scarlet fever about six years previously, but the ear had been dry for a long time, and was not interfered with at the time of operation. The adenoids were of considerable bulk. A moderate voice was heard with this ear immediately before operation at a distance of about a foot and a half, an hour after operation at a distance of about 13 feet. The marked improvement was not

consequent upon any change effected by the operation in the intra-tympanic air-tension, in the position of the membrane, or in the position of the ossicles (the factors which are generally regarded as covering the whole ground). Owing to the perforation these factors would not be affected by the operation, and it was evident that another cause was at work. It was suggested that the immediate improvement was causally related to the relief afforded by the operation to the circulatory mechanism.

As regards the ultimate impairment, the author stated that in some of his patients the improvement following operation was not maintained, and that on examining the post-nasal space he found adhesions between the posterior wall of the naso-pharynx and the Eustachian tubes, and that a rupture of the adhesions led to improvement in the hearing, but that the morbid condition was re-established several times, and that the unfavourable cicatrization was probably permanent. In many cases the raw surface left by the operation and the consequent area of cicatricial tissue is extensive, and the local conditions are also often unfavourable. The surface for cicatrization being the result of the removal of the mucous membrane covering the adenoids, the fossæ of Rosenmüller being the parts of most importance from the present standpoint, the ease with which adenoids may in many cases be broken up and expelled by the finger, and the difficulty of removing a piece of the mucous membrane by the finger-nail, suggest that the fossæ of Rosenmüller should be reserved for digital manipulation, except where the finger is insufficient. Crushing should be tried, scraping, where thought desirable, completing the manipulation.

In answer to the objection that the digital manipulation could not be radical, and might be followed by a reproduction of the adenoids, he pointed out that the presence of lymphoid tissue in the naso-pharynx is the normal condition, and that after operation various circumstances are against reproduction: (1) Devascularization of the naso-pharynx and its neighbourhood; (2) the establishment of respiration by the physiological channel; (3) the development of the region involved; (4) the antagonistic influences of time on lymphoid structures; and (5) the improved general health. Impairment of hearing from a reproduction of adenoids is remediable, but impairment of hearing from faulty cicatrization is practically irremediable.

DISCUSSION.

Dr. WATSON WILLIAMS (Bristol) said the immediate improvement of hearing was of great interest and difficult to explain. It

must be remembered that cases of adenoids in which deafness was most marked often had the least amount of growth. He had never observed the excessive cicatrization referred to by Dr. McKeown, and he would be very sorry to return to the finger-nail operation, which he thought only accomplished superficial crushing, with almost the certainty of recurrence. The adenoid tissue removed by operation was, he must remind them, diseased, and not healthy adenoid tissue, and the circulatory changes alluded to in explanation of the improved hearing were the consequence and not the cause of the adenoid growth.

Dr. LOGAN TURNER (Edinburgh) had examined the hearing in a number of cases of adenoids within four or five hours of the operation, and his results were similar to those described by Dr. McKeown. He had also examined the membrana tympani, but had never observed any lessened retraction such as might account for improved hearing. The explanation was difficult. Adhesions in the fossæ of Rosenmüller would, he thought, tend rather to keep the tubes open. The danger was rather of laceration of the tubal opening, which might cause obstruction. The tissue removed by operation was not normal tissue, and gave rise to catarrh.

Dr. JOBSON HORNE (London) said that the improvement in hearing that could so commonly be observed immediately after the removal of adenoids was often remarkable. The sudden and immediate improvement, he thought, was to be mainly attributed to the relief of the venous congestion by the operation itself; at the same time he considered that the less done in the way of examination or after-treatment for the first fortnight after the operation the better.

As regards the operation itself, a digital examination enabled one to ascertain whether it had been efficient, but an operation which largely consisted in crushing the adenoids with the finger was to be avoided. The hypertrophied adenoid tissue was prone to repeated attacks of inflammation, and, as had been pointed out, contained bacteria; a crushing operation would increase the risk of a secondary otitis; by means of modern curettes, it was possible to remove the hypertrophied and perhaps inflamed mass as a whole.

Dr. PEGLER (London) considered that the bridges or synechiæ so often seen stretching from the Eustachian cushion to the roof of the naso-pharynx were masses of lymphoid tissue. That point had been recently discussed by the Laryngological Society of London.

The presence of such bridges of tissue indicated, he thought, an incomplete operation.

The PRESIDENT said the finger-nail was very useful in completing an operation. Dr. McKeown's explanation of the improved hearing seemed to him probable, and helped to explain the good results obtained by the older operators with the finger-nail. The hæmorrhage caused a temporary alteration of the circulatory conditions with improved hearing for a time, followed, of course, by relapse. Probably most of them had noticed great improvement in hearing the day after operation; but, as a rule, he thought it was gradual, and to be ascribed to the subsidence of catarrh and improved ventilation of the tympanum.

Dr. McKEOWN in reply explained that he did not advocate a finger-nail operation, but suggested that the finger should be used to clear the fossæ of Rosenmüller in suitable cases—*i.e.*, when the growths were soft, and could be broken up and detached in that way. This would avoid risk of harmful cicatrization—a far more serious thing than recurrence. Immediate improvement and ultimate impairment of hearing power in his cases were determined by observation.

(To be continued.)

THIRTEENTH INTERNATIONAL MEDICAL CONGRESS, PARIS.

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SECTION OF LARYNGOLOGY AND RHINOLOGY: SUMMARY OF COMMUNICATIONS.

Translated and abstracted by DR. HEMINGTON PEGLER.

The Diagnosis of Cancer of the Larynx. By Professor B. FRAENKEL (Berlin).

The author holds that the microscopical examination of pieces removed from a tumour of the larynx is of fundamental importance in the diagnosis of cancer. If the result of the examination is negative, no certain conclusions can be drawn. Preparations, on the other hand, which give positive results enable us to make an exact diagnosis, and indicate the treatment. The difficulty is that ordinary sections for the microscope can only be obtained from very small pieces of tissue. The hardened pieces should be embedded in paraffin, and serial sections cut, which are best stained by the method of van Geison, or with picrocarmine.

It is not sufficient for the diagnosis to find in the preparation