AUSTRIAN OTOLOGICAL SOCIETY.

Meeting of November 24th, 1896.

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Translated and Abstracted by Dr. DUNDAS GRANT.

President—Prof. POLITZER. *Secretary*—Dr. POLLAK.

Dr. MAX. *A Case of Exposure of the Promontory (?); Necrosis.*

The patient was a man aged twenty-nine, who in childhood had suffered from measles and later from scarlet fever. As the result of this latter he had suppuration of the right ear, which had persisted without intermission up to the present time. In the summer of 1895 he had severe vertigo for eight days, which subsided spontaneously under the influence of rest; in the following May gastric spasms, which only yielded to a course of treatment at Carlsbad; in the beginning of June, rapidly recurring attacks of sudden vertigo with loss of consciousness, so severe as to prevent him from walking home. On the 3rd October he came under observation, and the meatus of his right ear was found blocked up by a mass of polypi, bathed in a copious collection of fœtid pus. The polypi were extracted, the operation giving rise to considerable hæmorrhage and transitory feeling of faintness. Subsequently chromic acid was applied to the stumps. Five days later the patient complained of attacks of indefinite vertigo, occurring frequently in the day. On the seventh day the probe struck upon a rough spot in the middle of the inner wall of the tympanum, and after chromic acid had been applied for several more days, so as to destroy all the surrounding granulations, the whole of this inner wall was exposed, and was seen to be of a yellowish-white colour, like macerated bone, while it felt rough to the probe, the tympanic membrane having almost entirely disappeared; the promontory and the niche for the fenestra rotunda were as plain as in an anatomical preparation. The exposed bone was not mobile, and pressure on the stapes caused severe vertigo. Bone conduction was increased on the right side, air conduction entirely lost, both for the tuning-fork and for the watch. Speech was not heard on the right side so far as could be made out by the use of Dennert's experiment. The patient's own voice was heard in his right ear, like an echo. During this period the vertigo increased, and in a fortnight was so bad that the patient had to be confined to bed, although the secretion in the ear diminished very greatly, and ceased to be fœtid. The vertigo gradually became less severe, the appetite improved, and the patient, after the two weeks, returned to his business, only suffering from occasional vertigo when he turned round suddenly. The facial nerve was at no time affected.

Dr. Max, on the strength of the above signs, made a diagnosis of necrosis of the labyrinth, or at least of necrosis of the inner wall of the tympanum, an opinion in which he was supported by Prof. Politzer. At the same time, the tuning-fork tests and the hearing of the patient's own voice did not seem to confirm this.

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During the time that the patient was confined to bed, it seemed as if the sequestrum became smaller and got covered before and behind with mucous membrane. This epidermization extended continuously forwards, the niche for the round window disappeared, and the promontory showed only a very narrow strip on its most convex part, running from below upwards, this gradually becoming covered till at present only the uppermost portion of this strip can be made out, as a rough spot, about the size of a pin's head. The secretion has almost entirely disappeared. The tuning-fork tests are as before.

Dr. Max looked upon the morbid process which had taken place as a necrosis, brought about by the suppuration of the mucous membrane, which, in this part, takes the place of periosteum. He considered that if the condition had been allowed to continue longer, the necrotic process would have extended more deeply. He attributed the vertigo to congestion of the labyrinth, and he thought that the condition of the patient's health in other respects excluded the possibility of tuberculosis.

Prof. POLITZER thought that there was a simple exposure of the osseous promontory, from tearing-off of the mucous membrane during the extraction of the polypi. In such cases regeneration of the mucous membrane took place from the margins of the loss of substance, or from outgrowth of connective tissue from the vascular exposed osseous wall.

Prof. GRUBER was of the opinion that cases were not very rare in which spots on the promontory, where the mucous membrane was lost, felt perfectly rough without there existing any carious disease.

Dr. FERDINAND ALT. *A Case of Nephritis; Hæmorrhage into the Labyrinth.*

The patient was a woman, aged twenty-four, affected with nephritis, producing an œdema of the face and upper and lower extremities. The urine was acid in reaction, with specific gravity 1013, a sediment containing vesical, pelvic, and renal epithelium, white blood corpuscles, hyaline casts with a covering of white blood corpuscles, epithelial casts, and two per cent. of albumen. The blood showed 2,680,000 red and 5581 white corpuscles in each cubic millimètre, the proportion of hæmoglobin being twenty per cent. On the 7th and 8th of November the patient complained of headache, vertigo, and epistaxis. Up till that time she had heard perfectly well.

During the night of the 9th she was wakened out of her sleep with noises in her ear, and with such violent giddiness that when she tried to sit up in bed she fell back. From that moment she was unable to hear with the left ear. On examination the membranes were found normal on both sides. On the right side the hearing for speech and the watch was normal. On the left side for the watch, and for the whisper, hearing was absolutely lost, and loud speech was only heard in the immediate proximity, as probably conducted to the right side. Weber was negative, Rinné on the right side positive. On the left side the C_2 tuning-fork in front of the ear was heard for a very much shortened period, and on the mastoid process was conducted to the right ear. There was no difference for high and deep tones. An ophthalmoscopic examination revealed in

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the left eye fairly numerous small hæmorrhages, especially in the region of the vessels surrounding the macula; small irregular spots on the macula with no marked abnormalities in the vessels; while in the right fundus there was fairly marked cloudiness of the retina (below the papilla), very few hæmorrhages, and numerous foci of degeneration of a yellow colour arranged in stellate fashion. The history and the symptoms connected with the ear and eye justified the diagnosis of hæmorrhage in the left labyrinth.

Prof. JOSEPH GRUBER. *A Case of Chronic Suppurative Inflammation of the Middle Ear, with co-existing Rheumatic Paralysis of the Facial and Trigeminal Nerve.*

The patient was a youth aged twenty-two, who had suffered with suppurative inflammation of the left ear since the tenth year of his age, the condition sometimes subsiding and again rapidly waking up. The discharge increased very considerably after an attack of cold eight weeks previously. Three days before coming under observation he had taken a vapour bath, and on the following day became affected with violent headache, when he noticed that the corner of his mouth was drawn to one side. When examined he was found to be in strong condition, free from fever, or from affection of the internal organs, and quite normal as regarded his right ear. In the left ear the following conditions were found. In the neighbourhood of the tragus, and exactly under the anti-tragus, there was a white blister of herpetic character. The otorrhœa was profuse, and after syringing there was seen on the antero-inferior part of the meatal wall an ulcer of the size of a lentil, sharply defined, bathed with pus, tender on probing, but not reaching the bone. The tympanic membrane was red, swollen, and its features were unrecognizable. No perforation was visible, but on inflation one could be made out in the postero-inferior quadrant. The soft parts over the mastoid process were unchanged and free from tenderness. The watch was heard by the right ear at four mètres, and by the left at two centimètres. Weber was positive, Rinné positive on the right side, negative on the left. There was complete paralysis of the facial nerve and of the motor division of the left trigeminus. (The patient could not chew on the left side, nor move the lower jaw to the left, and during biting no contraction of the left masseter was manifest; no changes in the mobility of the tympanic membrane could be decided on because of the existing inflammation.) No disturbance of sensation was present.

Otorrhœa subsided under treatment within eight days. The herpes and the ulcer in the meatus (resulting from herpetic vesicle) rapidly disappeared, as also did the paralysis of the trigeminal nerve. The facial paralysis disappeared in sixteen days on treatment in the hospital, with the exception of a very slight weakness of the branch going to the muscles of the mouth.

The exacerbation of an otorrhœa which had lasted for twelve years, the sudden occurrence of complete facial paralysis with severe headache, and the pronounced narrowing of the auditory meatus, might in such a case have been taken as indications for operative opening of the mastoid

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process. On the other hand, the paralysis of the motor branch of the fifth nerve, the herpes in the meatus and on the auricle, as also the history of the occurrence of the paralysis immediately after a vapour bath, appeared to be indicative of a rheumatic origin, so that one was justified in abstaining from operative procedure.

Dr. VON FRANKL asked under what circumstances the aurist was called upon to operate in cases of total paralysis of the facial nerve.

Prof. URBANTSCHITSCH replied that facial paralysis was only an indication for mastoid operation when along with it there was evidence of disease of the mastoid process.

Dr. KAUFMANN. *A Case of Simultaneous Acute Affection of the Acoustic, Facial, and Trigeminal Nerves.*

A man, aged thirty-four, who was healthy in every other respect, became affected on the 20th of July with general disturbance of health, lassitude, loss of appetite, headache, and elevation of temperature to 38·4, without any known cause. On the 25th there came on a feeling of painful tightness in the left half of the face, with redness of the skin of the cheek, on which there were small vesicles. The case was diagnosed by Prof. Drasche as one of herpes zoster. In the afternoon of the same day the headache became intense, and was accompanied by severe vertigo and repeated vomiting. These symptoms persisted for several days. On the 29th of the same month there was sudden, complete paralysis of the facial nerve, with loss of taste and deafness. The internal organs were perfectly normal ; no obvious affection of the brain or nervous system (the fundus oculi being normal). On the 10th of August the ears were examined, and the tympanic membranes, nasal passages, Eustachian tubes, and mastoid processes appeared normal on both sides. Hearing power on the right side was good, and on the left side a whisper was heard only close to the concha, loud speech scarcely half a mètre distant, and it was found to make no difference whether the left meatus was closed or open. (Weber was negative, and neither high nor deep toned tuning-forks were heard by air conduction on the left side). There was severe vertigo, especially when the eyes were closed, and there was inability to walk in a straight line, or to stand upon one leg. Treatment consisted in the internal administration of iodide of soda, one gramme daily, subcutaneous injections of chloride of pilocarpin, and acoustic exercises. On the 27th of August the paralysis of the facial nerve had completely disappeared. The hearing power improved within the first few days up to about two mètres for loud speech, at which stage it remained stationary. The noises in the ear persisted, but the vertigo and general disturbances quite disappeared.

As regards the diagnosis, Dr. Kaufmann considered that in view of the simultaneous affection of the two branches of the trigeminal nerve and the facial above the origin of the chorda tympani, and the deafness accompanied by Ménière's symptoms, that the disease in all probability must be in the nerve trunks in the left half of the base of the brain. New growths (from the bone, from the meninges, or from the brain substance), aneurism, hæmorrhage, syphilis, hysteria, and meningitis seemed

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to be absolutely excluded; one might think, however, of a rheumatic affection (Bing, Fränkl-Hochwart). Dr. Lorenz diagnosed neuritis, and the writer was in favour of this opinion. The neuritis seldom affected the nerves of sense (Bernhardt, Remak); the symptoms which supported the diagnosis of neuritis were the feverish onset, the occurrence of the herpes, the rapid course and the subsidence of most of the symptoms. The fact that the functions of the ear have not been completely re-established is in agreement with the statement put forward by Prof. Politzer, that in affections of the auditory nerve return to the normal condition is a very rare occurrence.

Dr. Kaufmann referred to the analogous cases described by Hofmann ("On the Study of Peripheral Paralysis of the Facial Nerve," "Zeitschrift für Nervenheilkunde," 1894), and the case of Toby Cohn, recently published by Frankl-Hochwart in his monograph: "Ménière's Complex of Symptoms."

Prof. URBANTSCHITSCH had observed a similar case fifteen years previously, in which the condition remained up till the time of death.

Prof. POLITZER had in several cases observed a peculiar form of facial paralysis with dulness of hearing power. The palsy came on with severe pains in the deeper parts of the ear, lasting for several days. Simultaneously there came on, with or without subjective noises, a dulness of hearing of varying degree. The affection, which subsided spontaneously, or under the action of iodine internally and electricity locally, ran through its course to recovery in from eight to fourteen days.

Prof. Politzer thought that in such cases there was a rheumatic inflammation in the part of the facial canal, lying in the petrous portion of the temporal bone, in which the hyperæmia extended to the neighbouring labyrinth, whereby the transitory disturbance of hearing was brought about.

Dr. D. KAUFMANN. *Otalgia during Influenza.*

Within the last few weeks there came to Prof. Politzer's out-patient department seven patients who complained of severe pains in the ear, which had come on with considerable feverish disturbances, remained intense for from three to eight days, and then slowly subsided. The objective appearances (meatus, membrane, middle ear, mastoid) were absolutely negative (in one case only there was retraction of the membrane with calcareous deposit, but good hearing power); no cause for otalgia was to be made out (carious teeth, disease of the nose, pharynx, or larynx). In a few patients there was a slight degree of swelling in the naso-pharynx, which lasted a few days, after which the pain subsided. In this case Dr. Kaufmann was led to the conclusion that there was some connection between otalgia and influenza, on account of the simultaneous occurrence of so many cases, the high degree of pain, the negative objective conditions, the slight effect of the remedies usually employed for otalgia, and the fact that at the same time there had come under observation a series of cases of acute otitis, which presented the signs characteristic of the influenzal form: hæmorrhagic vesicles in the meatus, bulbous myringitis, irregular course of the inflammation, early extension to the mastoid process, with severe general disturbance, and so forth.

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He had had the opportunity of examining, in Neusser's clinic, a female patient who, towards the end of October, was suddenly attacked with headache, loss of appetite, pains in the limbs, and chilliness followed by rigor, and four days later attacks of cough. On the 9th of November there came on severe pain, especially in the right ear. The aural appearances were perfectly normal, but there was slight tenderness on pressure at the exits of the second and third divisions of the right trigeminal nerve. On bacteriological examination of the sputum the bacilli of influenza were found, partly intra-cellular, partly extra-cellular, and their identity was confirmed by cultivation.

Dr. Kaufmann quoted from Dr. Hammerschlag's communications an instance in which a child in a family was affected with influenzal otitis, and at the same time the servant maid suffered from severe otalgia, with constitutional disturbances, which lasted for eight days, in spite of the extraction of two teeth. Similar cases have occurred in the experiences of other observers.

The writer felt justified in forming the opinion that in these cases we had to deal with an influenzal affection, taking the form of otalgia, which came on alone or along with the other symptoms of influenza, which began with fever and slight disturbance of the general health, lasted from three to eight days, subsided slowly, and sometimes left behind it for several days a disturbance of the general constitution.

In support of this he reminded his hearers of the fact that influenza very frequently gave rise to neuralgia, especially in the trigeminal nerve. He quoted an interesting case published by Voges ("Berlin Klin. Woch.," 1894). The patient had suffered for fourteen days with intense headache and fever, accompanied by spasmodic pain in the neighbourhood of the right maxillary antrum and right ear. There gradually extended very marked hyperæsthesia over the whole body, so that the slightest disturbance called forth a painful shrinking of all the muscles. After the illness had lasted about twelve days, there occurred the expectoration of a few greenish yellow masses of sputum, and in this was found an almost pure culture of the bacillus of influenza. Dr. Kaufmann further referred to the investigations of Cantani, Jun., carried out in the Institute for Infectious Diseases in Berlin, with regard to the action of influenzal bacteria upon the nervous system. From these it appeared that the influenzal bacteria generated an inter-cellular poison which acted injuriously, in the first instance, on the central nervous system. In the literature of the diseases of the ear arising from influenza, the intense painfulness of the inflammation is signalized. Prof. Politzer has stated, "There occur cases in which, after the subsidence of the suppuration, "neuralgic pains remain behind, having the character of otalgia." At the same time the fact that otalgia, without inflammatory processes in the ear, might occur epidemically as an abortive form of influenza, has not to the best of Kaufmann's belief been mentioned.

Prof. URBANTSCHITSCH had seen cases of pains in the ear which disappeared after the removal of the inferior turbinated body.

Dr. VON FRANKL observed three years previously a similar case, which he thought was now explained.

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Dr. G. BRUHL. *Experiments with English Thyroid Tabloids on Twenty-one Patients in Prof. Politzer's Clinic.*

Fourteen of these patients remained under observation and continuous treatment. Out of these, eight obtained no benefit, either subjective or objective; slight fluctuations of hearing power were not attributed to them. Of the remaining six, four improved considerably, and two very much indeed; in the best case, which was characterized by a pronounced hyperæmia of the wall of the promontory, the hearing power rose from ½ to 7 mètres for loud speech, and from 10 to 100 centimètres for the acoumeter; considerable alleviation of the subjective disturbances being also obtained. At the commencement the dose was one tabloid, increased to three; and after four weeks there was an interval of one week, when the treatment was again started; during the whole time no other treatment was carried out. The speaker sought for the explanation of the good effect of the thyroid treatment in adhesive processes in the middle ear, either in the iodine element in the preparation or in some functional association between the thyroid gland and the organs of hearing. There is evidence of such association in the facts observed in myxœdema and bronchocele. It remains to be seen whether this supposed interdependence of the two organs is in any way a cause of diseases of the middle ear. Dr. Brühl thought that tentative use of the thyroid method of treatment was indicated by those processes in the middle ear where retrogressive changes were possible. He had found no injurious effects even after as many as two thousand of the tabloids had been taken, but heart disease was a contra-indication.

Dr. F. ALT had carried on similar investigations with thyroidin tabloids in cases of disease of the middle ear under Prof. Gruber's observation, and had found very satisfactory results in some cases in which previously the most various forms of treatment had been carried out for a considerable time without any noteworthy result. He agreed with the previous speaker, and he recommended the tentative employment of thyroid tabloids in the residua of suppurative affections of the middle ear, in which the mucous membrane of the tympanum finally underwent cicatricial changes which led to rigidity of the chain of ossicles, fixity of the stapes, and obliteration of the round window—changes very analogous to those taking place in severe catarrhal processes.

Prof. POLITZER was of the opinion that the results obtained were sufficiently encouraging to warrant further experiments, but he warned his hearers against too sanguine expectations, and recommended that conclusions should not be arrived at until it had been found by prolonged observation that the improvement was permanent and not transitory.

Prof. A. POLITZER. *Severe Suppuration of the Middle Ear after Influenza, following a Symptomless Course. Recovery after Opening the Mastoid Process.*

The patient was a woman, aged thirty-two, who in February of this year became affected with suppurative inflammation of the right ear during an attack of influenza. The profuse suppurative discharge refused to yield to antiseptic treatment carried out for several months. On

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inspection there was found a small perforation in the inferior half of the membrane, perfect patency of the Eustachian tube, and complete absence of any sign of caries or granulation formation in the tympanic cavity or membrane. The mastoid process was free from pain and from tenderness on pressure; there were no subjective disturbances. Judging from the profuseness of the discharge, and its obstinacy under all treatment, Prof. Politzer decided that the intractable suppuration depended upon an abscess in the mastoid process, and that a chiselling operation was called for.

On the 14th of October the operation was carried out, and after a few strokes with the chisel a large cavity was found in the mastoid process, containing pus and granulation tissue. After the clearance of this by means of the sharp spoon, no communication could be made out between the cavity and the mastoid antrum. In view of Prof. Politzer's previous experience, that in such cases the suppuration in the tympanum ceased without the antrum being opened, no endeavour was made to effect an opening into the antrum, and the wound was plugged with iodoform gauze for five or six days. A few days after the operation the otorrhœa had markedly diminished, and after fourteen days every trace of suppuration had disappeared. There remained at the time of description only a small pin-hole perforation, which would probably soon close up. The wound over the mastoid process had nearly closed by granulation. The case was interesting inasmuch as, in spite of the fact that the disease had lasted for eight months, there were no objective or subjective evidences of an abscess in the mastoid process, and that the presence of such could only be inferred from the obstinacy of the otorrhœa.

The case showed the powerful influence of a shut-off mastoid abscess upon the duration of tympanic suppuration, which diminished so rapidly after the opening of the abscess, in spite of the fact that the antrum was not reached by the operation.

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(*Continued from page 92.*)

Dr. ARTHUR MATHEWSON, *President.*

Dr. HERMAN KNAPP. *A Case of Purulent Otitis Media, in which marked Symptoms of Meningitis developed. The Opening of the Mastoid and Cranial Cavities was followed by prompt Improvement and subsequent Recovery.*

The cure of purulent otitic meningitis may be considered the last and greatest triumph of modern surgery. The only undoubted cases are those of Macewan, published in 1893. The case reported was first seen by Dr. Knapp in consultation with Dr. J. A. Wells, of Englewood. The illness began on May 4th, 1896, with a tonsillitis, which subsided, only to

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