increased for sounds as well as for words and her *left* arm was partially paralysed. When seen a few days before her death she could understand nothing, and was to all tests absolutely deaf.

At the autopsy the first left temporal convolution was shrivelled to a thin strip, except at its anterior extremity. There was a depression at the posterior fourth of the second convolution, the result of embolic softening. In the right hemisphere the first and most of the second temporal gyri were destroyed.

Mills concludes that the centre for word-hearing is situated in the hinder thirds of the first and second left temporal convolutions. The field for all auditory memories covers a much larger cortical area. For complete brain-deafness (sounds as well as words) the destruction of the two upper temporal convolutions on both sides is necessary. Several other conclusions of great interest are drawn. *Dundas Grant.*

ASSOCIATION MEETINGS.

BERLINER MEDICINISCHE GESELLSCHAFT.

Meetings, Feb. 3, 10 *and* 17, 1892.

Baginsky.—*Etiology of Diphtheria.*

BACTERIOLOGICAL researches which the author made in 154 cases of diphtheria showed that in 118 cases Loeffler's bacilli were found. Of these 45 (equal 38 per cent.) died. In 44 cases tracheotomy was necessary. Of the other 39 cases, only four died. The author concludes that we have two forms of membranous pharyngitis. That which is caused by Loeffler's bacilli is much more severe; the other form is relatively harmless. It is caused by cocci. All cases of scarlatinal diphtheria showed only cocci, and no Loeffler's bacilli; the cases of membranous rhinitis showed the bacilli.

Discussion on Dr. BAGINSKY'S *Paper.*

RITTER has made bacteriological examinations in eighty-two cases suspected to have diphtheria. He found Loeffler's bacilli in twenty-nine cases. In no cases did he find them in the blood. In cases of true septic diphtheria no micro-organisms are found in the blood. It is produced by the ptomaines of the bacilli. If streptococci are found it is a case of mixed infection. Paralyses also can be produced by infection of streptococci alone.

ZARNEKOW regards as of special interest the presence of diphtheria bacilli in cases of rhinitis fibrinosa. Such cases prove that some people are protected.

TROJE believes that the pseudo-diphtheria bacillus is only a modified form of Loeffler's bacillus, which is not pathogenic, and it is not possible to make cultures. In mixed infections the streptococci are of great influence.

B. FRAENKEL said that he described, ten years ago, a membranous inflammation which is not at all diphtheritic.

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HENOCH said that in some cases of angina lacunaris the bacteriological examination may be of great advantage, but it is not possible for the practical physician to perform such examinations in all cases ; therefore all suspected cases must be treated as true diphtheria. He is glad to see that bacteriological examinations have confirmed his views concerning scarlatinal diphtheria. Concerning croup, he believes the existence of a true fibrinous, and not diphtheritic, croup.

SCHEINMANN said that all the cases of rhinitis fibrinosa now published were cured, also the two cases referred to by Baginsky ; therefore the presence of Loeffler's bacillus cannot be viewed as a sign of bad prognosis.

P. GUTTMANN does not believe that those cases in which the bacillus is not found are diphtheria. Of eight cases examined in his hospital, in two it was not found. In scarlatinal diphtheria he did not find it, and therefore he believes that this form must be different from the other diphtheria.

VIRCHOW first made the distinction between diphtheria and croup. This distinction must be kept in view, whether there be bacilli or not, because it will ever be of the greatest practical importance. He believes, for example, the enteritis produced by sublimate must always be called diphtheritic. Concerning the terminology, a difference between clinical and anatomical facts must be made.

BAGINSKY concludes that Roux and Yersin were the first who produced the diphtheritic poison. He agrees with Virchow concerning the clinical difference between croup and diphtheria, in spite of their etiological unity.

HEYMANN reported a case of a patient thirty-five years old, suffering from tuberculous ulceration of the cheek. *Michael.*

VEREIN FÜR INNERE MEDICIN. IN BERLIN.

Meetings, Dec. 7. 1891, *and Feb.* 22, 1892.

TREITEL showed the specimen of a case of colossal specific destruction of the nose and frontal bone. *Michael.*

NEUMANN agrees with the view that *Bednar's aphthæ* are caused by the irritation of the mouth of children by cleansing with lint. In the Präger Gebäranstalt, of the children whose mouths were so cleansed 54 per cent. had aphthæ ; in those which had been let alone, only 2 per cent.

LEHMANN recorded the cases of two patients with *aneurism of the aorta* with paralysis of the left recurrent nerve. *Michael.*

MEDICINISCHER VEREIN IN COTTBUS.

Meeting, Oct, 1891.

THIEM showed artificial teeth which he had removed from the larynx. *Michael.*

DORPATER MEDICINISCHE GESELLSCHAFT, 1891.

OTTO showed two rhinoliths : one was two centimètres long, one centimètre broad, removed from a patient twenty-four years old, who suffered from headache and fœtid discharge from the left side of the nose. Its centre was a piece of porcelain. The second was from a patient forty years of age.

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Fœtid discharge for four years. It was one-and-a-half centimètres long, and a quarter centimètre broad. *Michael.*

LARYNGOLOGISCHE GESELLSCHAFT IN BERLIN.

Meetings, Jan. 29 and Feb. 19, 1892.

ROSENBERG. A patient with *perforation of the soft palate.* In this case the intumescence of Passavant can be seen very well.

SCHEIER. *Gunshot Wounds of the Nose, and Accidents.* (1) A patient, eighteen years old, wounded by a revolver projectile. It went by the left side of the upper lip into the antrum of Highmore. Severe hæmorrhage ; the projectile could not be found. Cure five weeks later. (2) A patient, twenty-two years old, was wounded by a gunshot in the zygomatic region. Loss of sensation took place on the right side of the face. The lamina papyracea was destroyed, and the projectile must be situated in the frontal sinus. It could not be found in the orbit. Afterwards meningitic symptoms set in, which disappeared in some days. The paralysis and the amaurosis remained. The patient had another projectile in his under jaw from a gunshot four years before. (3) A patient, twenty-three years old, fired a revolver into his mouth. Defect in the palate ; laceration of the antrum of Highmore.

HOLZ reported on two cases of *Traumatic Neurosis ;* one of them was combined with a nervous aphonia and paralysis of the thyro-arytenoidei interni—the other with a paresis of the crico-arytenoidei postici and laterales.

SCHEINMANN showed two cases of *Eversion of the Ventricles.* In both cases the ventricles covered the vocal bands as greenish-red masses. It was possible to remove them by a probe.

LUBLINSKY referred to a similar case in his practice.

B. FRAENKEL believed that such cases are not an eversion of the ventricle, but an intumescence of the under-face of the ventricular band. It must be called chorditis ventricularis hyperplastica inferior.

HEYMANN. *On Diseases of the Upper Air-Passages in Influenza.* The author reported a patient with intumescence of the left arytenoid cartilage. The cartilage was covered with a yellow exudation, which could be removed by a probe.

ROSENBERG had observed laryngeal and nasal complications in thirty-eight cases. *Michael.*

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

("Med. Rec.," Feb. 6, 1892.)

Meetings, Feb. 2, 3, and 4, 1892.

MARTINDALE, F. E. (Port Richmond).—*Diphtheria, with Special Reference to a New Method of Treatment.*

A recommendation of an atmosphere containing the vapours of tar and turpentine. Within three years he treated twenty-four cases, losing but one. [Compare the similar treatment recommended by Dr. Charles Smith—JOURNAL OF LARYNGOLOGY, March, 1892, p. 113—viz., one part of carbolic acid, one of eucalyptus oil, and eight of turpentine, for saturating cloths suspended near the patient.]

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ROE, JOHN O. (Rochester, U.S.) — *Nasal Catarrh in Children: Importance of Early Treatment.*

Every condition of the nasal passages which produces an obstruction or causes contact between parts normally separate should be corrected. Any associated dyscrasia or debility of the system should also receive careful attention. Failure to give attention to catarrhal conditions in children often leads to most serious consequences relating to respiratory disorders or permanent deafness.

GOODWILLIE, D. H. (New York).—*Fibroids of the Naso-Pharynx, and their Treatment by means of the Electro-Cautery.*

Some rare cases described, and instruments of his own device exhibited. *Dundas Grant.*

MEETING of the OTOLOGICAL SECTION of the Sixty-fourth Gathering of the ASSOCIATION of GERMAN NATURALISTS and PHYSICIANS.

("*Monats. für Ohrenheilk.*, Jan., 1892.)

(Concluded.)

Dr. LOEWE (Berlin).—*On the Treatment of Blennorrhœa of the Middle Ear.*

The principle of the treatment is absorption of the discharge at the moment of its secretion, so that the diseased tympanum may remain continuously in a dry state.

If there is an acute median otitis (pneumo-diplococcus otitis) with profuse secretion and total destruction of the drum membrane, the tympanum and external meatus are to be completely filled with absorbent dressing material (cotton-wool, etc.). This is wet through in three or four hours, and has then to be renewed, day and night. Healing usually takes place in from two to four days. If at the end of a week there is still a discharge, the affection is not confined to the tympanum proper, but has affected one or more of the annexa ("attic," antrum or mastoid cells). In this case the next step is the opening of the attic through the external meatus so as to leave an aperture in the epitympanic bone of three or four millimètres in diameter. When this is done the attic can be plugged with absorbent wool and thereby kept dry. If in spite of this the disease continues unchanged Loewe holds that the antrum is affected, and opens that cavity. This is done by means of a dental drilling apparatus. After, as Stacke does it, the cuticular covering is detached from the upper and posterior part of the osseous meatus the bone is cleared away till the antrum is reached, so that, as it were, a second meatus is formed. The absorbent wool can thus be introduced into the antrum. Should recovery not quickly follow, the assumption is that the mastoid cells are involved, and in order to reach them he removes the cortical layer of the mastoid process by means of the dental machine.

This "tamponade" method is only available when the perforation is of large size. If paracentesis is required, Loewe cuts round the whole of the membrane excepting the membrana flaccida, detaching it from the limbus cartilagineus, so that a large semilunar opening is left, and the middle

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portion of the membrane with the manubrium is drawn back on to the promontory.

This method of treatment is applicable, with suitable changes, to all the forms of middle-ear blennorrhœa. The most important difference is when the secretion is not purely serous but muco-purulent. The fluid is then not so suitable for capillary absorption, as only the watery part would be taken up, and the muco-purulent residuum would remain behind. In these cases he insufflates a little powdered boracic acid before introducing its absorbent dressing.

Dr. HECKE (Breslau).—*Instances of Recovery from Metastatic Pyæmia arising from Middle Ear Disease.*

A youth of seventeen had been long under treatment for middle ear suppuration. Repeated paracentesis of the membrane had been done, a polypoid vegetation had been removed from the tympanic cavity, and the stump had been cauterized. He had long rigors, mastoid tenderness, continuous high fever, and profuse purulent discharge from the ear. The mastoid was opened and found soaked with pus. Four days later the left pleura became inflamed, and next day, after a sudden rise of temperature to 42° C. the left sterno-clavicular articulation. The joint was opened, and on the following day there ensued a right-sided pleurisy and inflammation of the right shoulder. Recovery took place.

The second patient, eighteen years of age, suffered from chronic catarrh of the naso-pharynx, Eustachian tube, and tympanum. Profuse suppuration came on as the result of an acute exacerbation in the right middle ear. In spite of enlargement of the perforation, repeated rigors took place, and the mastoid was opened. The fever diminished, but in a few days the rigors recurred, the right elbow swelled and had to be opened, the contained fluid being serous and turbid, showing crowds of streptococcus pyogenes. After a few short rigors complete recovery resulted.

Dr. HECKE *on Extra-dural Abscess in the course of Middle Ear Disease.*

Most of the accumulations of pus between the cranium and the dura mater are tuberculous according to Volkmann, Kraske, Heinecke, Krause, and others. Two cases narrated by Hecke resulted from influenza.

The first was a strong man of thirty-eight, who at the end of his influenza required treatment for catarrh of the nose, Eustachian tube, and middle ear of the right side. Headache and sleeplessness came on as the result of suppuration in the mastoid region. The mastoid itself was sclerosed, but the abscess communicated by a small fistula with the interior of the skull. The opening was enlarged, but the patient died of meningitis. *Post-mortem* there was found an opening in the tegmen tympani, communicating with the antrum, which was carious and full of granulations, the tympanum proper being unaffected. There was pus on the upper surface of the petrous bone and in the posterior cranial fossa.

The second, a workman, aged fifty-two, had right otitis media without suppuration after influenza. A painful swelling developed behind the right ear and the mastoid was trephined. In the temporal fossa the dura

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mater was exposed by necrotic caries ; suppuration extended backwards and downwards, and recovery appeared to take place, but two days before the intended dismissal sudden loss of consciousness, with high fever and meningitis, came on with a fatal issue. On section there was found a considerable collection of pus in the right middle and posterior cranial fossæ, and in the temporal fossa cicatrized caries. Owing to a mistake on the part of the dissector, the connection with the temporal bone was not made out.

Dr. HESSLER (Halle).—*On Extra-dural Abscesses following Otitis.*

The subject has been thoroughly described by Heinecke. Hoffmann found in 102 fatal cases of ear disease that the dura mater was exposed 34 times. Hessler in nearly 100 gougings of the mastoid found the dura exposed 17 times, and in 13 of these the patients recovered.

Hessler on searching the literature of the subject has collected 50 cases of extra-dural abscess, and adds to them three of his own. They were equally divided as regards side, but twice as often in males as in females, 30 times in chronic and 19 times in acute affections, and most frequently between the ages of 1 and 25.

He distinguishes *secondary* forms with bone-defect from *primary* forms without. The secondary were most frequent, occurring 41 times to 12 of the primary. The secondary abscesses were situated four times as often on the posterior surface of the petrous bone as on the tegmen tympani. The extent of the caries varied very much. Recovery took place after operation in 14 cases. Death occurred most frequently from cerebral abscess, then from meningitis, further from cerebral (? cerebellar) abscess and sinus phlebitis.

Hessler collected 12 cases of primary extra-dural abscess, including two of his own, which resulted from acute otitis and recovered. They were mostly on the posterior surface of the petrous bone, being twice as often there as on the tegmen. Three cases recovered. Death was generally due to meningitis. In eight of the cases the left ear was affected, and the patients were males.

It is impossible from these cases to make a definite description of the disease. The diagnosis cannot be made absolutely unless a fistula in the bone leads directly into the abscess, and is to be arrived at with probability by the exclusion of meningitis, sinus phlebitis, and cerebral abscess. The treatment is prophylactic and later purely surgical. Prognosis depends on the condition of the dura mater and the early adoption of treatment.

Dr. BRIEGER (Breslau).—*Demonstration of an Apparatus for procuring Germ-free Water for Syringing.*

A Berkenfeld filter in a metal cylinder is attached to the outflow pipe of the syringe. This cylinder and the point of the syringe have to be sterilized by boiling. Sterile water was obtained even when a copious supply of a pure culture of staphylococcus pyogenes aureus had been previously mixed with the water with which the pump was charged. The apparatus diminishes the force of the steam only to a small extent.

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The Session was then formally brought to a close after the appropriate votes of thanks had been given. The next meeting takes place at Nürnberg. *Dundas Grant.*

THE SOCIETY OF LARYNGOLOGY, OTOLOGY, AND RHINOLOGY, OF PARIS.—*Continued.*

Meeting, December 4, 1891.

Ménière's Vertigo—Pulsations demonstrated by the Endotoscope indicating Otitis. By Dr. GELLÉ.

From the characteristic nervous symptoms there is an easily intelligible tendency to regard the affection as of neuropathic origin, or secondary to a gastric disturbance, especially when succeeding the ingestion of food, or followed by nausea and vomiting. The stomach is treated, and the symptoms cease, then recur; then after some months complete deafness or noises in the ears draw attention to these organs. An incredible number of people are treated for gastric disorders, dieted, or sent to Vichy, and a couple of years later come to be treated for deafness more or less complete. The gastric attacks have yielded to treatment, while the ear, which has been forgotten, has become deaf. The state of the stomach, as well as of the circulation and the respiratory organs, has its influence on the symptoms due to aural affections. What are the signs which would lead to the inference that the ear has anything to do with the condition?

Some are very clear, such as vertigo, the special cerebral disturbance, provoked by centripetal pressure[1] in one ear of the vertiginous subject, but this is not constant, any more than is the vertiginous sensation caused sometimes by Politzerization, which has a certain value in such cases. Besides the objective symptoms, often very difficult to recognize, or without significance for the actual disorder, because they indicate a sclerosis or old lesion of the tympanum, there may be observed in certain cases pulsations in the endotoscope,[2] which leave no doubt of active fluxion, and perhaps also of vascular proliferation in the cavity of the middle ear, masked by a tympanum without any characteristic appearances, or with such as would only lead to error. The following case is a demonstration of the use of the endotoscope, not only as a manometer indicating the movements of the tympanum and their extent, and its elastic return, spontaneous, or due to deglutition, but manifesting also the pulsations of a vascular mass, or total fluxion of the tympanum.

Now, in presence of the syndroma of symptoms, such as vertigo, falling, nausea, etc., it is obviously of interest to find that there exists a lesion of the middle ear which may perhaps explain all the accidents. When these pulsations are clearly shown on the endotoscope no further proof is necessary. In spite of the coincidence of gastric, circulatory, or neurasthenic symptoms, it is important to recognize that an aural condition exists, which is of prime importance.

Case I. (February 15): A man, aged forty-five, worker in boilers for steamboats, etc., worked always in confined space, and when perspiring was accustomed to go out into a current of very cold air. He was also bronchitic and emphysematous, and short of breath on walking, deaf for a long time, and had, since September,

[1] Gellé's experiment, in which the air in the ear is compressed by means of an air-ball with a tip fitted tightly into the meatus.—[ED.]

[2] Gellé's "endotoscope" consists of a fine manometer, of which the proximal short arm is bent and fitted tightly into the auditory meatus, while the distal long arm is vertical, and of much narrower bore. A little water is placed in the bend, and any pulsations communicated to it are much magnified in the narrower arm of the instrument. By its means Dr. Gellé professes to have detected congestive conditions in the middle ear which were not perceptible by other methods of examination.—[ED.]

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chronic cough, attacks of which gave him headache and vertigo. In October he had cold sweats, staggering gait as if in liquor, and falling, with loss of consciousness, symptoms which he had had many times before in September, but without falling. In two or three seconds he recovered. The right ear buzzes continually, and pulsates like the heart beat. A watch is heard only on contact, and very well on the mastoid apophysis and the forehead. "Trans-auricular auscultation"[1] pretty good. By the endotoscope, absence of movement is found on Valsalvan inflation, and pulsations are absent. (He takes 0·60 centigrammes of quinine a day.) The pharynx is covered with large granulations covered with adherent exudation. The second sound of the heart very much intensified. In the left ear the watch is perceived at twenty centimètres, and very well on the cranium. The right tympanum is smooth and clear. After a partially successful Valsalvan inflation there are seen radial folds, and such bulging of the membrane and relative retrocession of the manubrium as would be seen in great relaxation. A few days later Politzerization succeeds, and the bulging of the membrane forms two cheek-like protuberances, with a furrow containing the manubrium between them. On deglutition with closed nostrils complete subsidence takes place. There is then observed on the membrana tympani, at its lower part, an oblong prominence of a dull white tint, and more opaque than the rest. This disappears on inflation. On March 1 endotoscopic examination gave evidence of free mobility of the drum-membrane and distinct pulsations. Otherwise there was no improvement. There was very loud tinnitus, cardiac pain, and tendency at times to fall, but no violent seizures. The patient had taken a second course of quinine for ten days. Headache was persistent, and increased by coughing. Air douches and throat fumigations were practised. On March 15 there was constant frontal headache, and at times attacks of tinnitus, but no severe vertigo, transient confused sensation, improvement as regards cough and throat. The watch was heard at four centimètres, and also plainly in contact with the cranium. The patient's general condition was nearly normal. The vertigo did not recur, but a slight catarrh of the left ear, of short duration, was induced somewhat later by exposure to cold.

In such a case the negative appearance of the tympanum would lead to the overlooking of the aural lesion. There was no otalgic pain, and the frontal headache with vertigo and reeling gait would have suggested a cerebral congestion in presence of the cough and emphysema. The pulsation communicated to the fluid in the endotoscope established the diagnosis of vertigo due to disease of the ear.

In the following case, the presence of a plug of cerumen in the good ear, with recent deafness, diverted the attention from the really affected one.

Case II. : A ruddy, vigorous man of forty-nine years of age had had syphilis at twenty-three, but enjoyed habitual good health.

For seven or eight years, he had from time to time been attacked with palpitation, shortness of breath, and throbbing in the head and temples, with oppression at the stomach so severe as to oblige him to go to bed, especially in cold weather.

Two and a half months ago, in consequence of severe cold, he had an attack of bilious vomiting in the night, and on waking was confused and unable to stand, with deafness in the right ear. There were no buzzings, but very rarely a slight squeak in the ear. The vertigo and head-trouble lasted fifteen to twenty days. He had never suffered with his ears. His left ear was quite good, but had been getting a little dull. In the left ear, there was a plug of cerumen, but it left sufficient space to let it be seen that the membrane was dry and indrawn. On removal of the cerumen, a watch was heard on the left side at fifty centimètres.

[1] A tuning-fork vibrating on the vertex is heard by the observer by means of an otoscope in the patient's ear.—[Ed.]

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The right ear was deaf; the watch being heard neither in contact with the meatus, nor on the mastoid, though well heard on the forehead. The Eustachian tube was closed. Politzer unavailing. The catheter would not pass more than one centimètre. Under cocaine and nasal douches it was possible, after a few days, to inflate the tympanum with immense benefit to the headache and confusion, and with cessation of the giddiness.

In this case it would have been supposed that the disease was centred in the labyrinth had not the endotoscope shown pulsations synchronous with the heart-beats. The deafness persisted in spite of treatment. There can be no question in view of this and other circumstances—suddenness, etc.—that there existed simultaneously with the median otitis a labyrinthine affection.

At a later date, a fresh catarrh attacked the throat and right ear, but without much vertigo. The ear recovered, but with only amelioration of the hearing-power.

Probably in many cases of vertigo, the aural lesion is deep and limited, being situated round the fenestra ovalis, near the facial nerve. It is only by later extension that the membrana tympani becomes affected.

The latter of the two cases illustrates the evolution of a specific parotitis—middle ear and labyrinth—causing disturbances of cerebration and equilibrium, with very little visible objective change. The endotoscopic pulsations, however, demonstrated the participation of the middle ear, as did also the relative improvement afforded by the air-douche. We have therefore a valuable means of diagnosis by which the treatment and prognosis are materially modified.

M. LOEWENBERG: Congestion of the middle ear is a factor quite apart from "Ménière's disease." A different title might have been adopted.

M. POTIQUET was afraid that Dr. Gellé, in looking upon the endotoscopic pulsations as a certain sign of latent intra-tympanic congestion, had been led into an error of interpretation. He himself had substituted ether for water in Politzer's manometer, and had, even in an absolutely healthy ear, observed oscillations isochronous with the pulse. He attributed this, too, to the pulsation of the arteries in the walls of the meatus and membrana tympani, and to impulses communicated from the neighbouring vessels.

M. GELLÉ stated that he published a work on this subject seventeen years ago, and that he considered the use of ether as leading to error. He thought it very difficult to experiment on one's self, and that one experiment was insufficient to found on.

M. POTIQUET thought he had avoided all sources of error.

The Society then elected M. Loewenberg Vice-President for 1892, and re-elected MM. Marage and Ménière to their offices of Annual Secretary and Treasurer.

Glandular Retention Cysts of the Anterior Part of the Nasal Fossæ. Two Cases by HENRI CHATELLIER.

Madame de X., fifty-five years of age, presented a tumour of the right lateral region of the nose, raising the skin of the ala of the nose and extending outwards towards the malar bone, and being regularly rounded. Palpation showed it to be painless, and non-adherent to the skin, which kept its normal colour. The tumour was seen on the internal surface of the ala, jutting into the vestibule and reaching to the anterior extremity of the inferior turbinated. Seized between the thumb and finger, the one in and the other outside the nasal cavity, the tumour was found to have the size of an almond, of firm and slightly resistant consistence, as if filled with fluid. The coverings of the vestibule and inferior turbinated did not appear to be altered, either in colour or shape, and the mass was not adherent to the bone, upon which it could easily be displaced. There were no general

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symptoms, fever, or pain. Though the presence of the tumour had become visible to the patient only fifteen days previously, when it began to increase in size, the patient could not fix the date of its commencement. Its round form, independence of the bony framework, and consistence, caused the author to think it to be a cyst developed at the expense of one of the glands of the nasal mucous membrane. An exploratory puncture was recommended, and the patient agreeing, it was operated upon on January 16, 1888. The parts were first cleansed with wads soaked in Van Swieten's liquor, and cocainized, and the tumour then punctured on the internal nasal surface with a sterilized Pravaz syringe. Two cubic centimètres of viscous, lightly brown fluid were withdrawn and preserved for histologico-bacteriological examination. The surface was then washed with a wad charged with fluid, and the tumour had completely disappeared. Next evening there was commencing erysipelas of the right naso-labial furrow, but no fever. This attack lasted four days, was very mild, invaded only a portion of the corresponding cheek, and produced no general symptoms. When this disappeared the tumour commenced to reform, and in fifteen days had attained its former size, so that the patient wished for further operation. It was, however, allowed to discharge for a month before operating again.

At the second operation, after cocainizing and vigorous antisepsis, an incision in the convex surface formed by the tumour in the nasal cavity was made with the galvano-cautery, as little heated as possible. At a depth of two millimètres the cavity of the cyst was reached, and yellowish, muco-purulent liquid was discharged. The cautery was applied to all parts of the cyst, and it was dressed with iodoform gauze. There were no complications, the wound cicatrized rapidly, and three weeks after there was no trace of the operation, except for a slight depression a little in front of the anterior extremity of the inferior turbinated. The tumour did not recur. A year and a half after, the cure was maintained. Histologically, the liquid viscid, composed of mucous and containing numerous pus globules. Bacteriologically, numerous chains of streptococci were seen, and were also cultivated on gelato-peptone.

Madame X., thirty-two years of age, presented a small tumefaction, which had arisen between the nose and the right cheek. It gave no pain, but she became alarmed at its increase of size. It formed an ovoid mass, as large as an almond, under the skin, which moved freely over its surface, and was unaffected. The tumour projected into the interior of the nasal cavity, depressing the skin of the vestibule, and effacing the concavity of this region. Being freely movable, excluding the idea of a growth from the maxillary bone, also of firm consistence, but not that of a solid body, the diagnosis was made of glandular cyst. Antisepsis by liquor Van Swieten being obtained, puncture was made with a sterilized Pravaz syringe,and one and a half cubic centimètres of muco-purulent, thready and yellowish fluid were withdrawn. One and a half cubic centimètres of liquor Van Swieten was injected and withdrawn. This was repeated several times, until the fluid withdrawn was normal. Tampon of iodol gauze was inserted, so as to fill the whole vestibule. No complication occurred, and the cyst did not refill.

MARTIN had seen a similar case, the cyst being in the left nostril, and simple puncture produced cure without recurrence.

CARTAZ remarked that these cysts are very rare, a few such cases having been reported. Their pathogenesis is very interesting. Cysts of the middle turbinated are the most frequent, but when situated in another region their mode of development is not intelligible.

CHATELLIER remarked that some invariably owe their origin to obstruction of a gland duct, but in other instances the explanation cannot be given.

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RUAULT remarked that tumours having the appearance of cysts are often met with.

LOEWENBERG thought Chatellier's communication very interesting, but it was curious that a pouch containing streptococci and pus should not lead to any general symptoms.

POTIQUET thought that ampullary dilatation of the osseous middle turbinated, to which allusion had been made, never results from a pathological process. It is rather an anomaly of development, a reversion explained by pathological anatomy. This would arise especially in an organ affected with morbid alterations; the mucous membrane clothing the dilated anterior extremity of the middle turbinated, more exposed by this fact to noxious influences, would inflame more easily, and that will be the pathological condition.

GOUGUENHEIM said that one might ask the difference between a cyst and an abscess, as the time when the cyst first showed could not be determined.

CHATELLIER replied that there was much mucus, the liquid being brown, and not yellow like pus.

GOUGUENHEIM: Hæmatomata at the end of a certain period do not always contain blood—that is why it is unfortunate not to know if in such a case there had not been a traumatism.

Note on the Treatment of Catarrh of the Pharyngeal Tonsil, and particularly the circumscribed form called "Tornwaldt's Angina." By Dr. ALBERT RUAULT.

The appearance of Tornwaldt's memoir in 1855 on "Catarrh of the Bursa Pharyngea" was, as is well known, the occasion for many anatomical and clinical works on the same subject. It will suffice to recall that the result of these researches, though appearing to invalidate the opinion of Tornwaldt as to the anatomical site of the affection which he has described, confirms partly his clinical observations, by establishing the existence of a circumscribed variety of naso-pharyngeal catarrh presenting a certain number of special characters, rebellious to old methods of treatment, and which yield only to local intervention methodically applied. However, all who have had occasion to observe Tornwaldt's angina are at one in stating that in such cases the results of the most persistent local treatment are very variable. It is reasonable to enquire if these rebellious cases do not owe their tenacity to some unknown anatomical peculiarity, rendering the seat of the disease more difficult to instrumental and other treatment. This hypothesis is the more legitimate, since up to now control of clinical observation by autopsy has always failed, anatomical researches upon this subject having always been conducted in the dissecting room. I should, however, state that the special pathologico-anatomical point, the observation of which in a certain number of persons has conducted me to the operative procedures which I shall presently discuss, is sufficiently known.

It has been described in an interesting work by Potiquet on the anatomy of the pharyngeal tonsil. He related a case where on dissecting a subject in whom the fusion of the folds limiting the median cleft of the pharyngeal tonsil through a certain extent of the borders had led to the formation of a pouch or *cul-de-sac opening in front.* But this condition, which in the dissecting room is exceptional, appears to me to be pretty frequent in patients presenting the signs of Tornwaldt's angina.

In order to observe it upon the living subject it is indispensable to take special precautions.

The ordinary naso-pharyngeal probe is not suitable, since if under control of the mirror its extremity is introduced into the vulvar orifice of the median cleft,

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which is visible by posterior rhinoscopy, this extremity directed upwards, does not penetrate it, and leads to the belief that there is a simple recess without depth. If on the contrary the naso-pharyngeal portion of the probe is curved in a U shape, so as to give it the form of a hook, with a small branch looking downwards and a little backwards, and having a length of five to six millimètres, it is possible, under control of the mirror, with the instrument guided from before backwards on the vault in the median line, to enter the orifice from before backwards, and from above downwards, and to make the curved branch of the instrument penetrate easily in all its length. It is easy to see then by exercising traction upon the probe that this solidly rests on a solid fold, and the resistance offered by the mucous membrane is often astonishing, and similarly so is the effort which tearing necessitates, or more accurately speaking, the scission of the anterior wall of the cavity in which the instrument is engaged. To give an instance, it will suffice to say ordinary German silver probes do not permit of exact application, because not only does their great curve elongate, but their extremity partly straightens, and often escapes without the tissues yielding. It is necessary to employ a more rigid instrument of iron or steel, in which the small branch of the hook and its concavity are a little compact and not yielding. It is then sufficient to apply the hook with a firm hand, and to carry it quickly forwards and downwards (in relation to the patient), that the shock may lead to the rupture of the anterior wall of the *cul-de-sac*, throughout its extent, and without much pain. I cannot easily explain the marked resistance I have met with so often at this part of the pharyngeal mucosa, for generally the tissue of the pharyngeal tonsil preserves during retrogression a comparative friability. I am then obliged to make some reservations as to the exact seat of the pouch where the short branch of the probe penetrates, and I do not dare to affirm that this cavity is always intra-tonsillar, as in the case described anatomically by Potiquet. However that may be, scission thus practised, followed by curetting, and cutting of its free edges with a cutting curette, like Sim's uterine or Heryng's laryngeal curettes, then local cauterizations with iodine or strong carbolic solution, lead to rapid and excellent results, in cases where until then I have only obtained transitory improvement. Where there is a posterior inferior opening, *cul-de-sac* scission should be practised in the same manner. At the end of about a week the affected region presents the appearance of median cleft, where the mucosa, red and soft, is no longer covered with muco-pus or crusts as before. If the catarrh has many seats of origin, scission of the median recess does not suffice. The operator should endeavour to break down, with a suitably curved rigid probe, the tracts and bridles of tissue of the lateral regions of the pharyngeal tonsil and the walls of its various anfractuosities. This done, it is easy with the cutting curette before mentioned to detach the *débris* now only partially adhering to the subjacent tissues.

Topical applications are easily made, and the most rebellious forms of the condition rapidly submit to improvement.

It is quite intelligible that catarrh of the pharyngeal tonsil should be cured by scission. Lacunar catarrh of the tonsil is thus cured promptly and easily, even when honeycombed with deep follicles; and *à fortiori* catarrh of the pharyngeal tonsil, localized in the crypts, anfractuosities, and *cul-de-sacs*, resulting from pathological adhesions between the surfaces, which in the normal state limit clefts largely open, should be similarly benefited by the destruction of the furrows, whose walls are manifestly the origin of the secretions in this affection. Curettage without scission often fails; and the galvano-cautery and chemical caustics are not satisfactory. After scission, however, complementary measures act rapidly and well. I am speaking in this place only of those cases in which the retrograding

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pharyngeal tonsil does not cause a tumour. In cases where there is a tumour, ablation is, of course, the first indication; but in cases where there is not any, or no more tumours, I cannot subscribe to the opinion of M. Chatellier, who recommends radical ablation of the parts with cutting forceps. "These anfractuosities and these edges," writes he, "are commonly of a lively red colour; they "are the seat of a chronic inflammation impossible to cure, unless they are "destroyed by forceps, which, so to say, cures the pharyngeal surface." In my experience the matter is not so simple, and in the immense majority of cases it would be necessary, if we wished to destroy all, that there should be many applications of forceps, and still it would be difficult to avoid removing too little at certain points, and too much at others; and, lastly, there would be danger of hæmorrhage, primary and secondary, of which it is never possible to foresee the imminence or gravity. I do not desire to extend this note by adding cases. Though I might relate some cases of rapid cures, I do not dare yet to say that they are definite. My object in publishing these notes is to direct the attention of my colleagues to control themselves the assertions here set forth. Finally, I would insist on the necessity of practising scission of the pharyngeal tonsil, and even curetting or swabbing, only under the control of the mirror, and when the patient can support the palate hook, tongue depressor, etc. If these operations are done in the dark, it will not be fair to attribute the poor results obtained to the inefficacy of the method recommended by this note.

Meeting, January 8, 1892.

Note on the Treatment of Pharyngitis of the Vault, or Tornwaldi's Angina. By Dr. LUBET-BARBON.

In reference to M. Ruault's communication, I will remark that it is very difficult to practise scission of the pharyngeal tonsil, and, further, that I am in accord with his own words, and see why this is difficult; moreover, it is not of much use to perform it.

The disease in question is characterized symptomatically by flow of muco-purulent secretion coming from the vault of the pharynx, and anatomically by lesions of the pharyngeal tonsil. If one examines the vault in these cases, it is seen that hyper-secretion occurs at points well determined by antero-posterior clefts, more often median (*recessus medius*), sometimes lateral (*recessus lateralis*), but that the tonsil is oftenest not developed—there exists only a vestige of adenoid vegetations; the lesion is entirely intra-mucous, and if a curved probe is introduced into these recesses it is found that there is often a very considerable depth—sometimes one to one and a half centimètres; it is the mucous membrane covering these *cul-de-sacs* from which proceeds the secretion; it is, therefore, not, in my opinion, with a parenchymatous affection of the tonsil that we have to do, but simply with a superficial lesion of the mucous membrane. To excise it is to seek the tissues round the cavity, to endeavour to tear an indurated tissue, retracted and fibrous; it is, moreover, more easy to detach the whole mucous membrane with a crotchet than to make a tear across it. It is the mucous membrane which secretes so abundantly, and it is thickened like the uterine membrane: it is by curettement that the diseased portions can be removed in both cases, and this is the proceeding I adopt. I for a long time used the curette introduced by Kafemann; now I prefer to employ an instrument of which the idea was furnished to me by the gynæcological curette; it is composed of an elongated ring, one border of which is soft, the other cutting, and the shank, the important part, is made of steel, so tempered that it can be bent at will, and more or less according to the depth or extent of the bursa to be curetted.

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The palate retractor being in place, the curette is introduced into the recess under guidance of the mirror, the cutting edge turned backwards, and by to and fro movements the whole cavity is scraped throughout its depth. Shreds of hypertrophied mucous membrane fall, of a thickness of one to two centimètres, soft and whitish; these fall with the blood upon the mirror placed below them, which interrupts the operation for an instant.

Wads of absorbent cotton control the blood, which flows into the pharynx, and when the cavity is free from bleeding a *porte-caustique*, with nitrate of silver, is introduced into the interior. The operation is generally not painful; inflammatory reaction follows, lasting for three or four days; the more abundant secretions carry away with them portions of the cauterized tissues, and a second curettement is rarely necessary. It is sufficient to make a second application of silver stick fifteen days after the first. To relieve consecutive inflammation a twenty per cent. solution of mentholized olive oil is employed for swabbing.

RUAULT remarked that he had found caseous matter in this pouch. There are some patients who are cured immediately; others who present recurrences. The question is not completely elucidated.

GELLÉ said that two years ago he had presented a characteristic anatomical specimen.

On the Frequency of Latent Bilateral Empyema of the Antrum of Highmore, and the Necessity of Methodical Exploratory Irrigation of this Cavity in Cases of Nasal Blennorrhœa. By Dr. LICHTWITZ (Bordeaux).

Almost all authors say that a bilateral affection of these cavities is rare, and looking through the numerous published observations very few cases are indeed found. It is only Ziem, Kaufmann, and we ourselves, who have reported many of these cases on the living subject, and Gradenigo on the cadaver.

Thus in Ziem's first publication[1] on this subject, in 1886, out of twenty-five cases of nasal blennorrhœa there are only eight cases of bilateral empyema of the antrum.

In Kaufmann's work,[2] of thirty-six cases of empyema which he communicates, there are only thirteen cases of bilateral empyema.

Gradenigo,[3] who examined the sinuses of three hundred cadavers, found nineteen cases of empyema of the maxillary sinus, of which six were bilateral.

We ourselves, in our work on the diagnosis of latent empyema of the antrum by exploratory irrigation,[4] related, amongst fourteen cases, four cases of double empyema, and we described the most striking of these cases.[5] Since then we have observed eight other cases. Twelve bilateral cases we have compiled from forty cases of abscess of the antrum, or a proportion nearly of one case of bilateral to three of unilateral empyema.

If we seek the reason why most authors have recorded very few cases of bilateral empyema, and others have recorded them comparatively often, we find it in the obscurity of the symptoms of this affection, and in the absence of methodical examination of the maxillary sinus. This examination consists in making an exploratory irrigation of the antrum in each case of nasal blennorrhœa, however slightly we may suspect it to be affected.

In cases of unilateral empyema, when the unilaterality of the symptoms strongly arouses suspicion, exploratory irrigation is useful only to give the last confirmation of the diagnosis, in order to avoid a large useless opening into the antrum, and

[1] Ziem, "Monatssch. f. Ohrenheilk." Nos. 2, 3, 4. 1886.

[2] Kaufmann, *ibid.* Nos. 1, 8. 1890.

[3] Gradenigo, "Annales des Mal. de l'Oreille," &c. No. 8. 1891.

[4] Lichtwitz, "Bulletin Med." No. 86. 26 Oct., 1890.

[5] The other cases were included in Jeanty's monograph, "De l'Empyème latent de l'Antre d'Highmore," &c. Bordeaux. 1891.

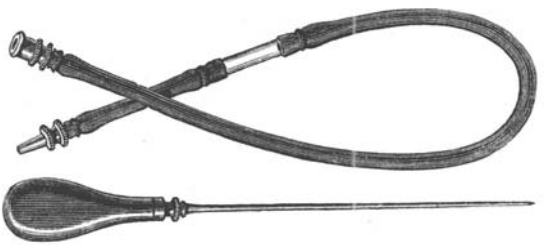
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also to demonstrate to the patient the necessity of intervention. In empyema of both antra, on the contrary, where the bilaterality of the symptoms would cause one rather to think of a general affection of the nasal or retronasal mucous membrane than of a localized focus of suppuration, the direct research of the pus is the only means of diagnosis.[6] In fact, Ziem, Kaufmann, and ourselves owe our cases of double empyema of the antrum to methodical exploration of this cavity which each of us has made by a different channel.

Ziem, who first suggested methodical exploratory irrigation, thanks to which he was enabled to demonstrate the frequency of empyema of the antrum in the absence of the classical symptoms, practises it through an artificial orifice in the alveolar arch.

Kaufmann irrigates through a canula introduced through the natural or accessory orifice, according to the method employed by Hartmann for the treatment of abscess of the antrum.

We ourselves reach the antrum through a puncture of the nasal wall of the antrum in the inferior meatus by means of a thin straight trocar[7] (see figure) after



the manner we described in our first work on the subject. This process is, in fact, only the operation in miniature which Miculicz performs at the same place with his lanciform perforator, Krause with his large trocar, and Tornwaldt with his trephine in order to open the sinus largely for the treatment of empyema by this channel.

We have in the work mentioned previously already mentioned the reasons for which we prefer exploratory puncture through the inferior meatus to that made through the alveolar arch, and washing through the natural or accessory orifice, or rather by an artificial orifice created in the infundibulum. Dundas Grant,[8] who lately spoke of our method of exploration before the British Laryngological and Rhinological Association, said :—"Nearly always the diagnosis of empyema is a "little uncertain, until exploratory puncture has been made ; that is a point upon "which all conscientious observers will agree with me, I think." And after describing the details of the method, he adds that by this simple manœuvre we can give the patient, before leaving our consulting room, a convincing proof to encourage him to submit to the classical operation of Cooper. The author recalls a certain number of cases observed by him where the adoption of exploratory irrigation had been extremely useful.

[6] If certain authors such as Walb (Bonn, 1888, p. 9) and Lennox Browne in the discussion which followed the communication of Dundas Grant upon our method of irrigation (JOURNAL OF LARYNGOLOGY, p. 487, 1891), say that they have always found pus in the antrum when they had suspected it, it does not follow that many cases may not have escaped them in which there was pus without their having a suspicion of it. They have probably only operated upon patients in whom the diagnosis according to known facts was nearly quite certain.

[7] It can be obtained from R. Mattieu, 13, Boulevard Saint-Germain, Paris.

[8] Dundas Grant on "Lichtwitz's Method of Exploratory Puncture and Irrigation of the Antrum through the Inferior Meatus." Brit. Laryngol. and Rhinol. Assoc., Nov. 27, 1891 ; JOURNAL OF LARYNGOLOGY, Dec., 1891, No. 12.

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At the present time, basing ourselves upon a more extensive experience, for we have already made one hundred and eleven punctures, we can still more warmly recommend this mode of investigation, which has rendered us the greatest service, especially in seeking for double empyema. In forty-three cases irrigation gave a positive result. Sixty-eight times the injected antiseptic liquid returned quite clear. The forty-three positive punctures were in thirty-one patients, of whom twelve had double empyema.[9]

Among the cases quoted by us in our first statistics it happened than in four we could not pierce the nasal wall of the antrum; since that time this has only occurred once in a patient who must have had a rudimentary antrum, since puncture through the alveolar arch had been equally impossible, although the drill had been buried to a depth of about two centimètres.

In two other patients—a woman of twenty-seven and a man of sixty—we were obliged to abstain from terminating the puncture. The woman was taken with a convulsive crisis, probably from touching a spasmogenic zone, and the man became ill.

Formerly we caused irrigations of the nasal fossæ, to expel pus therein, to be made before puncture, but since we have found that these injections can cause the emptying of pus from the antrum, and thus annul the result of the exploratory irrigation, we only cleanse the parts with a wad of cotton on a probe. Puncture is only slightly painful in most cases, and we often do it without local anæsthesia. We have never seen any notable hæmorrhage. Patients whom we have interrogated after the puncture state that they have never felt any kind of pain or malaise.

A priori, the harmlessness of puncture is foreseen, for the mucous membrane of the antrum is in direct continuation with the nasal fossæ through its natural opening, and consequently with all the microbes which reside there, and, even neglecting the most elementary laws of antisepsis, it would be difficult to admit that a capillary puncture could have any harmful consequences. A curious thing is that many patients, in whom we have punctured and washed out the maxillary sinus without finding pus, distinctly state sensible and lasting amelioration of the hyper-secretion and of the catarrh for which we had believed it necessary to explore the cavity. Another patient from whom we had removed a number of polypi, and who returned to us in fear of having them recur, because fifteen days before she had felt a tickling in the nose, sneezed without cessation, and saw continual flow of clear liquid from the left nostril. Puncture of the left antrum immediately caused the arrest of tickling, rhinorrhœa, and sneezing. McBride[10] records two similar cases in which exploratory puncture, although with negative result, was followed by disappearance of the symptoms complained of. We only relate two cases from our twelve cases of double empyema, in which bacteriological examination was made of the pus.

Case I. (*continued*): Mme P., fifty years old, constant need of handkerchief, especially to left side of nose, for about seven years; coryza and bad odour in the nose. Treated for four years by a specialist, who removed some polypi, and made numerous cauterizations. The second upper right premolar and first large molar of the left side were absent. Illumination by transparency showed the left side cheek to be clear, and the right side dark. Exploratory puncture of each side through the inferior meatus caused fœtid pus to be discharged.

M. Sabrazis, *interne*, found in the pus of the left side streptococcus pyogenes in very great number, almost to the exclusion of any other microbe. That of the right side contained chains of streptococci less numerous, together with various microbes.

[9] In nine other patients diagnosis was made four times by irrigating through an alveolar fistula, or after the extraction of a carious tooth, the root of which communicated with the antrum (four times), or by capillary puncture through the alveolus of a tooth (one case).

[10] McBride, "Deutsche Med. Woch.," Feb. 5, 1891, No. 6.

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Both antra were opened in October, 1881, by Cooper's method, and washed out every day with boracic water. Objective symptoms disappeared, and at the end of two months the antra secreted only very little.

Case II. (*continued*): Mme. Ch., fifty-six years of age. For at least ten years constant wiping of the nose, especially the left nostril. Cacosmia at times; the three right molars, and first left premolar absent. Congestion of the chest—left side—in 1889. Treated with Weber's douche for some years. No nasal lesion, nor mucus in the middle meatus. Both sides of the face very transparent to Heryng's illumination. Exploratory puncture causes discharge of fœtid pus from both sides. That from each antrum contains a great quantity of lanceolated diplococci, with the objective characters of the pneumococcus of Talamon-Fraenkel. On 12th December a large opening by Cooper's method made into the right antrum, and three days after into the left antrum. Boracic injections and applications of pencils of tannin, seven per cent. At the end of December no further need for the handkerchief, but injection of the antra still yields some flakes of pus.

The recognition of bilateral empyema will perhaps throw some light upon the etiology of this affection. A nasal origin is more probable than a dental origin, and the coincidence of affection on both sides would be best explained by the same morbid process of the nasal mucosa.

Luc,[11] endeavouring some months ago to elucidate the etiology by the fœtidity and bacteriological examination of the pus, concluded that in empyema of dental origin there is fœtid pus containing various microbes, whilst in empyema of other origin there is non-fœtid pus containing exclusively streptococci. We do not believe that the fœtidity of the pus can be taken as an important etiological factor. It seems to us to depend upon the length of sojourn in the antrum. In the same patient and the same antrum we have observed, at different times, sometimes non-fœtid muco-purulent secretion, and at other times flakes of fœtid pus, just according to whether the pus flowed more or less easily from the natural orifice.

It is sufficient very often to remove some small polypi from about the hiatus semilunaris for the pus to lose its fœtidity. The results obtained bacteriologically by Sabrazis in Pitres laboratory do not appear to us to confirm Luc's opinion. The pus of the left antrum in our first case, also that from a case of unilateral empyema, although it was fœtid, contained pure cultures of streptococci, and the pus from each antrum of our second patient contained large quantities of pneumococci.

More numerous observations are required, but, whatever the etiological *rôle* of the bacteria, they have an importance from the point of view of complications. Thus the occurrence of the streptococcus, which Luc was the first to mention, and of the pneumococcus as occurred in our second patient, in the antrum, render intelligible those frequent complications of empyema of the antrum, to wit, erysipelas of the face, abscess of the eyelid, peritonsillitis, which Ziem has recorded, and pulmonary complications, of which we have related an example (*loc. cit.*).

We believe that in Luc's case erysipelas of the face was rather the consequence than the cause of the empyema by streptococci.

The prognosis of double empyema appears to us more grave than that of unilateral empyema—indeed, two only of our twelve patients have been cured; seven patients, though improved, are still under treatment—one for sixteen, the other for twenty months; one patient has not yet decided upon operation; another has been lost to observation; a third has died from a cardiac affection.

As to treatment, we do nothing more than Cooper's operation, which permits the patients to look after themselves. For two months we have successfully

[11] Luc: "A Case of Empyema of the Antrum of Highmore due to the Streptococcus of Erysipelas." Archiv. Internat. de Laryng., Rhinol. et d'Otologie, March and April, 1891, pp. 73-80.

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employed medicated pencil (iodoform, tannin, &c.). They are more convenient than insufflations of powders, or injections of antiseptic or concentrated astringent fluids, for they can be introduced by the patients themselves, a fact which is not to be under-estimated in an affection which is often very rebellious.

Thanks to exploratory irrigation, no matter by what method, the diagnosis of empyema can be made in a certain manner, in each case, however little suspected.

When inoffensive and certain methods will have been devised of exploration and opening the other accessory cavities of the nose as easily as the maxillary sinus, the galvano-cautery and Weber's douche, those panaceas for the routine practitioner, will no longer play so great a part in the therapeutics of nasal affections.

Nasal blennorrhœa will then figure no more in rhinological treatises as a morbid entity, but will serve only to designate a symptom common to different nasal affections, and especially to empyema of the various cavities of the nose.

A Case of Acute Rheumatic Crico-arytenoid Arthritis. By Dr. Luc.

On November 30th last, I was asked by my friend, Dr. Rogrou, to examine the larynx of M. W., a man about thirty, affected for eight days with alarming dyspnœa, which the absence of pulmonary affection and the coincidence of pronounced stridor easily permitted us to refer to the larynx.

On the 19th November the patient was taken at Tours with fever and pains in the joints of the lower limbs, making walking extremely painful and almost impossible. After taking three grammes of antipyrin and one gramme of quinine the joints were next day less painful, but the throat was affected. During the night of the 20th there was intense fever and nightmares, recurrence of pain in the legs and in the wrists. Returning to Paris, Dr. Dargent diagnosed the attack to be influenza with rheumatic manifestations. On the 25th and 26th the joints were less painful, but pains in the throat increased, and were especially evoked by movements of deglutition; they also began to be accompanied with dyspnœa and stridor. On the 28th and 29th the laryngeal symptoms increased in intensity and there was slight catarrh. The next day I made a laryngoscopical examination with the following results:—

Epiglottis intact. Slight congestion of the vocal cords, enormous swelling of the left crico-arytenoid region, forming a rounded tumour of the size of a nut, which encroached considerably upon the laryngeal vestibule, and was the main cause of the dyspnœa; but it was easy to see that this was increased by the absolute immobility of the left vocal cord and the arytenoid of the left side. I made a diagnosis of *rheumatic anthritis of the left crico-arytenoid* and after giving a cocaine insufflation, I prescribed daily three grammes of antipyrin and two grammes of iodide of potassium, and tincture of iodine to be applied to the front of the neck as a revulsive. On the 2nd December the throat pain had diminished, that in the limbs remained stationary. Dyspnœa persisted.

From 3rd to 10th December the patient experienced marked oscillation between the pains of the larynx and the limbs.

On December 10th the stridor had disappeared, and there was notable diminution of arytenoid tumefaction and a return of mobility on the left side of the larynx. Antipyrin was continued, and turpentine frictions over all the body.

A few days after the patient wrote me that there was no longer any throat symptom. After a calm period of eight days, he was attacked again with articular rheumatism in the right wrist, and when I saw him on January 6th, this joint was swollen and painful, and movement of the hand impossible. A laryngoscopic examination showed that the laryngeal cavity had returned to its normal condition.

It appears to me that the hypothesis of acute crico-arytenoid rheumatic arthritis is the most plausible which can be entertained. The sudden appearance of

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laryngeal symptoms in the course of rheumatic manifestations of most of the joints of the body, along with marked fever (39°), the momentary abolition of the movements of the left vocal cord coinciding with tumefaction of the region of the crico-arytenoid articulation of the same side, and lastly the rapid disappearance of the laryngeal accidents, appear to me strongly to support this contention.

This is the second case of the kind which I have seen. I saw another such case in 1886, in Schroetter's practice at the General Hospital in Vienna. Similar facts appear to me to be rare; at least, I have not been able to find records of any such cases in the laryngological literature of the last few years.[1]

RUAULT remarked that some cases of the same description had already been published. He mentioned amongst others the inaugural thesis of Archambault, and the works of Liebermann and Boris; the latter has, indeed, spoken of a pseudo-blennorrhagic rheumatism of the larynx.

GOUGUENHEIM said that the case related was of extreme rarity, and in the whole of his hospital practice he had never met with anything similar. He recalled a case observed by Desbrousses, a pupil of Schultzenberger at Strasburg. In this there was no stridor, but aphonia; the dyspnœa of the patient was caused by visceral complications (pseudo-pericarditis). Although he himself had not seen crico-arytenoid arthritis, he had seen chronic arthritis, and especially arytenoidean perichondritis, both in chronic and acute laryngeal phthisis. He had not observed stridor or adduction of the cords, but rather separation of the cords and aphonia—the latter always. He would not say that dyspnœa and stridor would never be observed, but it had never been seen by him in cases which resembled that of Dr. Luc, nor had it been seen in those rare analogous cases which had been recorded by others and which he had just mentioned.

LUC remarked that his patient presented dyspnœa and no aphonia. The cord was fixed in adduction, which explained the production of dyspnœa due to the approximation of the other cord.

RUAULT said that he could not see how this would be sufficient to cause dyspnœa and stridor; subglottic tumefaction would appear to him to be the principal cause.

The Use of Injections of Van Swieten's Liquor into Tissues of Cancerous Appearance. By Dr. MARAGE.

In 1890 Dr. Poucel, Surgeon to the Hospital at Marseilles, made to the Academy of Medicine a communication upon "the curability of tumours of cancerous appearance by interstitial injections of bichloride of mercury." I had occasion to make an application of this treatment a few weeks after under the following circumstances; The patient, an old non-commissioned officer, had syphilis in 1854, of a mild but characteristic type. In 1867 he had a bubo in the groin without blennorrhagia. It was opened with Vienna caustic; after two months he recovered. In 1874 (twenty years after) he married, and the wife and daughter had no specific taint. In 1888, after being in a draught, a swelling appeared on the lower border of the right side of the lower jaw. This disappeared easily. In 1890 he began to perceive a painless tumour, which rapidly developed under the tongue, about the level of the right sub-maxillary gland. It reached beyond the lower jaw and projected outwards. The size of an egg, excessively hard and immovable, it formed one with the inferior maxilla, and presented

[1] A case of acute crico-arytenoid arthritis, published by Ramon de la Sota, and analysed in the "Rev. de Laryngologie," 1886, p. 508, did not show the coincidence of rheumatic manifestations in the other joints, and we cannot, therefore, see why the author considers it as a case of rheumatic affection. Liebermann, a few years ago, communicated to the Soc. Méd. des Hôpitaux the case of a young soldier who, during the course of a blennorrhagia, presented signs of crico-arytenoid arthritis. I quote also the history of a patient of Schutzenberger, who succumbed to pulmonary-cardiac complications in the course of a general articular rheumatism, after having presented signs of laryngeal pain, and at the autopsy of whom the crico-arytenoid articulations were found to show inflammatory swelling.

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numerous projections under the tongue. He was admitted into the hospital. For three weeks anti-syphilitic treatment was tried without success. The disease dated from thirty-six years previously, it must be remembered.

In face of this failure, and the appearance of the tumour, it was suggested to him that operation was indispensable and serious. Reading in October, 1890, of the treatment of Dr. Poucel, I persuaded the patient to submit to a trial of this before undergoing operation, which could as well be performed fifteen days afterwards. At some days' interval I gave him, under all antiseptic precautions, two injections of Van Swieten's liquor, with a Pravaz syringe, introducing this deeply into the tissue. The first time only one or two drops penetrated, at the second sitting 1 cc. was injected, causing moderate pain. The next day violent pain and pulsation was experienced, and suddenly in the middle of the night he felt something break in the mouth; he expectorated, and the next day brought me two small calculi. The tumour externally did not diminish in size, and caused him much pain.

An incision made into it on October 16th allowed much pus to escape, and seven days after the patient was completely cured, having no trace of tumour externally or under the tongue. Fourteen months have elapsed without recurrence. Considering the antecedents and rapid development of the tumour, the patient appeared to me to have been affected with a syphiloma, and the salivary calculus either was developed after this or perhaps preceded it, and was the exciting cause. The argument in favour of malignant growth, supported by the inefficacy of internal treatment, has no certain value, for syphilis often resists this, but yields quickly to injections of corrosive sublimate. Dr. Poucel agrees with me in thinking that we had not to do with a malignant growth, and adds, "these injections "appear to me to be serviceable in encephaloid, scirrhous and recurrent cancer. "I do not believe that they cure in such cases, but they often cause the disappear-"ance of enlarged glands, improve the general condition, very often relieve pain, "and appear to transform the soft cancer into a hard growth and retard general-"ization. I believe them to be without any effect in epithelioma."

HERINET remarked that diagnosis was often very difficult. He had seen one case where a diagnosis of epithelioma was made and operation decided upon. Dr. Fournier ordered specific treatment and the tumour was completely cured.

LOWENBERG suggested that the tumour may have been produced by the retention of the salivary fluid caused by a calculus.

RUAULT remarked that retention tumours might be very hard. He had seen such in the parotid region.

Dr. RUAULT presented an ingenious instrument which could be used either for injection or instillation of fluids. It had a curved tube for penetration into the larynx. At one extremity it had a piston and pump with a reservoir and the exit of fluid could be so arranged that the liquid could be ejected either as a jet or drop by drop.

Meeting, February 3, 1892.

A Case of Foreign Body (piece of peach) which remained for three days in the Nasal Pharynx. By Dr. ET. SAINT-HILAIRE.

On July 30 last, M. C., aged twenty-five, consulted me for blood spitting, which had lasted three days and frightened him greatly.

There was no hereditary disease; the parents, yet living, enjoyed perfect health, suffering only from some attacks of gout.

The patient had had measles at twelve years of age, had never been seriously ill, and had never had cough. All that he had ever complained of was granular pharyngitis, which had been under my treatment for some months. At the commencement of treatment these formations were large, red, and surrounded by vascular network. He also had naso-pharyngeal catarrh and hypertrophy of the

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inferior turbinateds. Scraping the naso-pharynx, and application of iodi-iodurated solutions had improved the condition, and the pharyngeal granulations had diminished in size and were less vascular. Some days before the commencement of the hæmoptysis the patient had had removed some bad teeth from the upper jaw. On the left side there only remained the canine and the wisdom tooth; on the right side the two premolars and first molar had been removed. Mastication was difficult and painful for a few days after. For three days he had expectorated blood, and was frightened believing himself to be phthisical. He had also, he said, a pain about the right breast. There was no pain in the throat or nose, and he did not find any blood on blowing the nose. The hæmoptyses occurred without coughing, but the sanguineous expectoration seemed to come from the throat. He also experienced lancinating pains in the right ear. A very careful examination of the chest disclosed no lesion, and there was not anywhere the least crepitation. The hæmoptysis was therefore not of pulmonary origin. The granulations in the pharynx were very large and very red, and covered with a vascular network. The larynx was very congested all over, the vocal cords and ventricular bands being very red, but no cause of hæmorrhage was found there; and still the expectoration continued to be blood-stained.

Rhinoscopic examination explained it. Above the posterior extremity of the inferior turbinated was perceived a rounded tumour of the size of a small nut, partially covered with blood-stained mucus. It rested chiefly on the posterior wall of the pharynx, and all round it was a hæmorrhagic ring. Touching with a curved probe removed the mass, and immediately a movement of the arch of the palate and pharynx caused it to fall into the mouth. Careful examination disclosed it to be a piece of peach, very hard, and with the flesh firmly adherent to the stone. The patient remembered having eaten it three days previously, and next day he commenced to expectorate blood, at first in small quantity, then more and more. Half an hour after removal of the foreign body all hæmoptysis ceased, and next day there was no longer any congestion of the pharynx and larynx. He was not, however, at the end of his troubles. Up to the time he was able to have his artificial teeth inserted it frequently happened that pieces of food entered his naso-pharynx and even into the nasal cavities. There was, however, no paralysis of the muscles of the pharynx or arch of the palate, and sensibility was perfect.

This fact has appeared to me interesting from many points of view. First, is it not curious to find a foreign body resting in the naso-pharynx for three days without giving rise to pain or any other symptom than spitting of blood? Is it not also difficult to explain the entry of a foreign body into the naso-pharynx of a person not having any motor or sensory paralysis of this region? This was solely due to the absence of the larger teeth, for as soon as these were replaced the accident did not recur. How could the absence of teeth lead to this trouble of deglutition? I suggest that incomplete mastication left large pieces in the alimentary bolus, which had no cohesion. When this was seized by the muscles of the pharynx, it may be that a hard piece coming into contact with the alveolar arch had caused a sharp pain, leading to a sharp expiration, and carrying a portion of the bolus into the naso-pharynx. Possibly, also, when the tongue was swept round the palate the food, not being retained by the dental arch, penetrated into the jugo-alveolar cleft, and that inco-ordination of the movements of the arch of the palate was the consequence. Another detail is worth mention. This foreign body in the naso-pharynx produced very intense congestion of the pharynx and larynx. It was certainly a reflex congestion, for it disappeared immediately after removal of the foreign body. May not we compare this to the numerous laryngites and pharyngites cured by the treatment of affections of the naso-pharyngeal cavity?

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