

to press upon a considerable surface of the brain, may give rise consecutively to chronic inflammation of its substance or to that particular disorganization which has been denominated ramollissement.

The aneurism itself may terminate either by a spontaneous cure, the sac becoming obliterated and converted into a solid tumour of more or less magnitude, or from a rupture of the sac, an extravasation of blood may take place within the cranium or within the substance of the brain, and give rise to all the phenomena of apoplexy, or to paralysis of certain muscles; or in consequence of the irritation of the brain resulting from the aneurism, or indirectly produced by it, inflammation of that organ may take place, or a change, as we have remarked, may occur in its organization.

Aneurisms within the cranium are most commonly sooner or later destructive to life, or impair permanently the functions of certain organs. Of the cases of the disease which have been observed, one instance only is recorded, in which a natural cure took place and the patient's health was completely restored, while six are stated to have terminated in rupture of the sac and the production of apoplectic symptoms.

To the dissertation is appended an interesting table presenting a brief conspectus of the cases of aneurism of the arteries of the brain, described by different writers, together with the more important of the facts which have been noted in relation to them.

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ANT. XVI. *Conspectus Morborum Auris Humanæ. Dissertatio Inauguralis Pathologico-Therapeutica.* Auctor JULIUS LOBETHAL. 8vo. pp. 91. Berlin. 1833.

A View of the Disease of the Human Ear. By JULIUS LOBETHAL.

With the different diseases to which the human ear is liable, we are as yet imperfectly acquainted. Of the true character of several of the morbid states of the internal portions of the organ, we are unable to judge during the life of the patient, and even after death an examination of the affected parts is attended with considerable difficulty. It is to these circumstances that we are in great measure to attribute the comparatively slight attention which many of the diseases of the internal ear have received. The pathology of the auditory organ is, nevertheless, a subject of very great importance, and demands a full and satisfactory investigation on the part of those who possess the requisite talents and opportunities.

The work before us, while it presents a very accurate summary of the existing facts in relation to the more prominent affections of the organ of hearing, in the collection of which, the author has exhibited great industry, adds nothing whatever to our previous amount of knowledge. As the production of a student it deserves, nevertheless, unqualified praise.

The first disease treated of is, of course, inflammation of the ear. The symptoms laid down by the author as diagnostic of this disease, are those peculiar to the more acute and aggravated cases of inflammation seated within the cavity of the tympanum. In the cases of ordinary occurrence many of the symptoms he describes are often wanting, while others occasionally present themselves, which he has neglected to enumerate.

"Otitis, he remarks, is indicated by an ardent, pulsating, tensive, and lancinating pain in the affected ear, with fever, for the most part intense; a full, hard and frequent pulse, cephalalgia and a sense of constriction in the head, inquietude, great anxiety and watchfulness; frequently delirium; cold extremities; fainting, and torpor of the limbs. There is a ringing in the ears with an obtuse or morbidly acute sense of hearing. Sometimes the fauces about the orifices of

the Eustachean tubes, the tonsils, teeth, and even the brain itself become likewise affected. There is some diversity in the symptoms according to the seat of the inflammation; if the meatus externus and cerumen glands are involved in the disease, the lining membrane of the former is red and swollen, and the slightest touch applied to any part of the ear is productive of an increase of pain. If the inflammation is confined to the middle and deep seated parts of the organ, there is no appearance of either redness or swelling in the meatus, but a deeply seated pain in the ear is experienced by the patient, and his hearing is usually rather more acute than obtuse. Should the inflammation not be dismissed at an early period, the pulse becomes small and frequent, violent pains are experienced in the occiput, eyes, muscles of the chest and temple; furious delirium supervenes, followed by convulsions and sopor; the power of speech is impaired; the extremities become cold; the patient is liable to syncope; and death finally results. When the disease terminates favourably, it is generally about the fourth or fifth day, by resolution or some critical evacuation."

Although we may admit the foregoing to be a tolerably accurate description of a violent attack of acute otitis, we cannot receive it as one applicable to inflammation of the ear in general. Were the physician to be guided by it in forming his diagnosis, he would be apt to overlook many cases of otitis, terminating in an entire destruction of the organ of hearing. The fact is, in some instances, the symptoms of otitis are extremely obscure, while in others they are so completely masked by those dependent upon some sympathetic affection, especially of the brain, that the seat of the disease is not suspected; this is particularly true when otitis occurs in infants and young children. Of the chronic form of inflammation of the ear, to which scrofulous subjects are liable, our author has furnished no description.

A very common and generally unfavourable termination of the more deeply seated inflammation of the organ of hearing, is in suppuration. This, according to our author, is to be anticipated if a resolution of the disease does not occur within six or eight days; while at the same time, the pains increase in violence and the patient experiences a throbbing in the affected ear. As suppuration progresses, the pain gradually abates, and finally disappears; a tumour forms behind the ear, or a sense of fulness is experienced within it. The pus is discharged either through a perforation of the membrum tympani or by the Eustachian tube, or it may be retained within the cavity of the tympanum, and cause the destruction of all the surrounding parts.

The very great tendency of otitis to suppuration, and the danger of the sense of hearing becoming, in consequence, impaired, point out the necessity of a close attention to the early symptoms of the disease, in order that they may be removed by prompt and efficient remedies. This is especially the case in young children, in whom inflammation of the ear is of frequent occurrence, and apt to be overlooked or confounded with other diseases.

As causes of otitis the author enumerates mechanical injuries, wounds, and concussions of the head, violent percussion of the temporal bones, foreign bodies admitted into the meatus, hardening, accumulation or some other morbid state of the cerumen, abuse of injections into the external meatus, the imprudent use of ear picks, difficult dentition, especially in the case of the last molar teeth, caries of the latter, of the small bones of the ear or of the mastoid process, nocturnal dissipation or prolonged study, a rheumatic, gouty, syphilitic or berberetic taint in the system, metastasis of acute fever, the exanthemata, suppressed hæmorrhages, especially nasal hæmorrhage; obliteration of the Eustachean tubes, hysteria and hypochondriasis, and all the ordinary causes of inflammation or whatever gives rise to a congestion towards the ear.

The treatment of otitis as laid down by our author is extremely judicious. He points out the propriety of an early resort to blood-letting, either by venesection or by leeches or cups applied in the neighbourhood of the ear, to the neck, or occiput. In some instances both general and local blood-letting will

be demanded, and we may remark that there is no case in which we can with propriety dispense with the free application of leeches behind and around the ear. The other antiphlogistic remedies are to be resorted to according to the circumstances of each attack. If the disease has been preceded by suppressed hæmorrhage, or by the sudden disappearance of any disease of the skin, we are directed to employ means adapted to cause their restoration. As local remedies after blood-letting, injections into the ear of milk and water, of a decoction of mallows or other mucilaginous fluid, together with anodyne fomentations and poultices externally applied, are recommended. The steam from a decoction of narcotic herbs may likewise be directed into the meatus by means of a funnel. The application of mercurial ointment to the mastoid process has been supposed beneficial in some cases of otitis; blisters behind the ear or to the back of the neck are very generally recommended, while some physicians direct them to be applied also to the wrists and ancles, which is no doubt proper in all violent cases of the disease. To keep the patient perfectly still and in a room of a moderate but even temperature, as well as to guard him as much as possible from every species of noise, is so evidently proper as scarcely to require notice.

When it is found that a resolution of the inflammation cannot be effected, but that suppuration is about to take place, we are advised by our author to endeavour to promote the speedy formation of pus and cause its prompt discharge, so that injury to the internal structure of the ear, or the formation of a foul and chronic ulcer may, if possible, be prevented.

To this end emollient poultices are to be applied to the affected ear, the vapour of warm water directed into the external meatus, or we may introduce into the latter tepid water and honey, small portions of fresh lard, or some tepid mucilaginous fluid. Occasionally the pus is discharged by the Eustachean tubes, to promote which, gargles are to be employed, or the fumes of tobacco may be drawn into the mouth, and by closing the lips and nostrils forced by an effort at expiration into the orifices of the tubes. Generally, however, the pus perforates the membrum tympani, and is discharged by the external meatus. The author very properly remarks that to wait until a spontaneous perforation of the membrane takes place, very generally endangers the hearing, for the pus accumulating within the tympanum produces such extensive injury previously to finding a passage externally, as to destroy permanently the functions of the organ. To prevent which the membrane should be artificially punctured as soon as possible after the formation of pus. The operation is trifling of itself, and while it gives a free exit to the matter, does not in the least impair the hearing.

In regard to the purulent discharge from the ear that so frequently succeeds to inflammation of that organ, especially when the disease has been neglected or badly managed in its earlier stages, and which is one of the most obstinate and troublesome affections the physician is called upon to treat, the author directs the ear to be kept constantly clean by a cautious use of injections, at first of some mild tepid fluid, and subsequently of a slightly astringent wash. A great number of injections have been recommended for this purpose, such as tepid water, honey and water, infusion of chamomile flowers, the juice of rue with vinegar or tincture of myrrh; and when astringents become proper, lime water, solution of corrosive sublimate, of white vitriol, of verdigris, of carbonate of potass (an ounce to a pint of water,) decoction of the leaves of the *nimex acetosolea*, one part to six of honey of roses or the juice of houseleek. To them may be beneficially conjoined derivatives, blisters, setons, purgatives and warm coverings to the ear.

Injections into the meatus, however, are to be employed, we are told, in purulent otorrhœa, only with the greatest caution, as even the mildest of them

when rashly resorted to are liable to cause a sudden arrest of the discharge from the ear, and, in consequence, to give rise to dangerous symptoms.

"Should the discharge," remarks the author, "become suddenly suspended, either from cold, some affection of the mind, or an improper use of astringent injections, means should be promptly resorted to to re-establish it. Itard recommends as the most efficacious plan for this purpose, to cover the whole side of the head corresponding with the affected ear, with bread newly drawn from the oven and deprived of its crust, its application to be renewed every three hours, and at the same time to inject into the meatus externus a solution of corrosive sublimate, three grains to eight ounces of water."

Inflammation of the external meatus is described by our author as a specific disease, under the denomination *Catarrhus aurium*. As this is a very common affection in children, and one not of unfrequent occurrence in adults, giving rise when neglected in its earlier stages, or improperly managed, to a very troublesome, obstinate and disgusting discharge from the ear, and occasionally destroying the hearing, we shall translate the description of the disease given by Mr. Lobethal, which so far as it goes is extremely accurate. He divides catarrh of the ear into three periods:—

"1st. The period of inflammation. The most constant symptoms of this period are; a sense of fullness in the meatus auditorius, soon accompanied with pain more or less severe, never, however, to the same extent as is usually experienced in otitis. The head also becomes affected with an obtuse, constrictive pain, the patient experiences a ringing in his ears or a difficulty of hearing, he is subject to horripilations, followed by slight fevers, for the most part towards evening, with an exacerbation during the night. The internal surface of the external meatus becomes red and swollen, and usually an increase of pain is experienced from the slightest touch. Ordinarily after twenty-four hours duration, but sometimes sooner, this period changes into the—

"2nd period, or that of crisis. All the local symptoms, the fever and inflammation gradually subside, and great relief is experienced upon the occurrence of a copious discharge from the ear of a puriform fluid of either a yellow or whitish colour, and generally of a fetid odour; which is preceded usually by an excretion of serum, sometimes streaked with blood. Upon examination the lining membrane of the meatus auditorius will be found to be still swollen. After two or three weeks the discharge usually diminishes, acquiring the consistency and odour of cheese, and then entirely disappears, while the secretion of healthy cerumen is speedily re-established. But so favourable a termination does not always take place, the disease frequently passing into the

"3d period, or that of blennorrhœa. The morbid secretion from the lining membrane of the meatus still continues—there being a copious discharge of thick mucus, of either a yellow or greenish colour, and of an intolerably fetid smell; this discharge will sometimes persist for many weeks, frequently for months and years, notwithstanding every effort on the part of the physician to restrain it."

Among the causes predisposing to catarrh of the ear, the author enumerates as the most common, cold, especially in persons of a lax fibre liable to catarrhal affections, or who are exhausted by chronic diseases or other causes, a humid and cloudy state of the atmosphere, such as prevails in autumn and winter, defect of clothing, damp residence, &c. Infants are especially liable to this affection, particularly such as are of a scrofulous habit, herpetic, or subject to tinea capitis, or who, immediately upon recovering from an attack of small-pox, measles, or scarlet fever, are imprudently exposed to cold. The disease is said to be sometimes caused by a metastasis of scrofulous ophthalmia, or it may result from irritation of the ear, either from mechanical causes or transmitted to it by sympathy.

The treatment of catarrh of the ear is very briefly considered by our author. It is true that in perhaps the majority of cases, the physician has no opportunity of seeing the disease in its first stage, as it seldom attracts the attention of parents until the discharge from the surface of the meatus has taken place, but whenever it is in his power to direct his remedies so as to reduce the inflamma-

tion previously to the appearance of the latter, the tedious and disgusting otorrhœa to which the disease gives rise, may in general be prevented; but when once established, its cure often baffles our utmost skill.

According to M. Lobethal the first stage of catarrh of the ear is to be treated by leeches, if the inflammation is of any extent, and by a moderately antiphlogistic regimen. In the second and third stages the same remedies are proper, as were directed in suppuration of the ear succeeding to otitis, together with a properly regulated diet, and regimen, and light bitters, and tonics.

The chapter on sympathetic or cerebral otorrhœa is almost entirely copied from Itard's "*Traité des maladies de l'oreille et de l'audition*" published in 1821.

The sections which treat on "foreign bodies in the ear" and on "otalgia," though extremely short, present very useful views in relation to those subjects.

Almost two thirds of the work are devoted to a consideration of the morbid states of the auditory function; Dysœcia, Baryœcia and Cophosis. Under this head we discover nothing particularly interesting. The opinions, experience, and directions of the more celebrated writers upon the diseases of hearing, are, it is true, concisely, but accurately stated; no additional light, however, is thrown upon the causes of defective and depraved audition, nor any more effectual means for their prevention and removal, than those with which we are already acquainted.

The concluding sections present some observations upon the humming, ringing, singing, buzzing and other sounds so often experienced in the ear, either as a symptom of various affections of the organ itself, or of other parts, or in the absence of any very apparent disease.

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ART. XVII. *Vierzehnter Jahresbericht des Königlichen Poliklinischen Instituts der Universität zu Berlin, umfassend die Jahre 1830, 1831, 1832, 1833, u. 1834.* Von Dr. E. OSANN, &c. 8vo. pp. 106. Berlin, 1835.

The Fourteenth Report of the Polyclinic Institute of the University of Berlin, embracing the years from 1830 to 1834, inclusive. By Dr. E. OSANN.

The Polyclinic Institute of the Berlin University was established in 1810, for the purpose, as well of affording medical and surgical aid to the poor, as to supply clinical instruction to students. Within the twenty-four years, during which it has been in existence, the number of patients received into the institution amounted to twenty-four thousand three hundred and twenty-four; affected with the following disease, namely:

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| Fevers, - - - - - | 2,430 |
| Inflammations, - - - - - | 2,034 |
| Diseases of the skin, - - - - - | 1,832 |
| Nervous affections, - - - - - | 3,000 |
| Chronic diseases of the respiratory organs, - - - - - | 2,092 |
| Diseases of the digestive and assimilating organs, - - - - - | 2,359 |
| Diseases of the genital and urinary organs, - - - - - | 831 |
| Dropsies, - - - - - | 500 |
| Gout and rheumatism, - - - - - | 772 |
| Scurvy and rickets, - - - - - | 999 |
| Syphilitic affections, - - - - - | 408 |
| Surgical diseases, - - - - - | 3,161 |
| Diseases of the eye, - - - - - | 3,903 |

Of these 24,324 cases, 17,025 were cured; 731 died, and the remainder were either removed to other hospitals or continued under treatment. Besides the young physicians who attended the practice of the institution during the period above specified, the number of practitioners amounted to 894. The number of