ON

RHEUMATIC AFFECTIONS OF THE EAR.*

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THE materials of the present communication were embodied in the paper I proposed to arrange for the treatment of these very intractable (if neglected) diseases, but I find that there are symptoms to which I have not yet alluded, more particularly in the chronic stages, and in which the rheumatic diathesis has not affected the constitution generally, I have, therefore, thought it better to point out a few more of these peculiarities, which will enable us to distinguish the disease, and to recognize its early character.

In the rheumatic inflammations of the ear, we generally have much more reliance on the subjective or constitutional symptoms than altogether the local or objective, but there are certain striking characters which are sufficiently obvious, and not to be mistaken, if once seen and recognized. As I have before stated, it attacks more especially the fibrous structure of the organ; that is to say, the cartilage of the ear, the periosteum, the membrana tympani, and neurolema covering the nerves distributed to the cavity of the tympanum, and to the canals of the petrous portion of the bone; from hence it is related to the mucous membrane and other structures. It generally confines itself merely to one side, seldom attacks both sides simultaneously, and most frequently occurs as a secondary phenomenon. It is frequently preceded by febrile symptoms, with evening or nightly exacerbations, or rheumatic pains of the teeth, the eye and the parts around it, the temples, the nape of the neck, &c., which then disappear on the ear affection setting in, sometimes also alternating with it, so that the latter diminish if the former again return. At first the patient complains of more or less acutely drawing, tearing, and other pains in the ear, which return at intervals during mastication and speaking; they also become increased during the night when warm in bed, and the patient is annoyed with restlessness and sleeplessness. Sometimes I have observed symptoms of face-ache to make their appearance, and exalted sensibility to the impressions of sound, tinkling, and a continuous buzzing in the ears, and uncertainty in hearing. On making an examination, the ear and the meatus are found to be reddened, the latter presenting an oedematous swelling; the membrana tympani traversed by numerous vessels, and exhibiting a dark red appearance, the secretion of the ear being at first suppressed, which is afterwards compensated by a mucous discharge. Should the patient make the trial of forcing air into the cavity of the tympanum through the Eustachian tube, and succeed, this is followed by a considerable aggravation of the pains, and by a feeling of tension and of fulness, which remains for a long time after, whereby the perception of sound becomes still more confused and more acute. If this form of

inflammation is treated early and actively, it ordinarily is dispersed, by which means all the symptoms become mild, and subject the patient only to relapses from time to time, which usually may be recognized by means of pressing and tearing pains of the ear and surrounding parts—not however very violent, imperfect hearing, accompanied with a buzzing and other unpleasant noises, redness of the meatus and of the membrana tympani, and frequently by a muco-purulent secretion; and in elderly subjects also, or in cases where a very enfeebling mode of treatment has been adopted, the inflammation often leaves behind it an obstinate and tedious blenorrhœa. If the inflammation become developed under a less judicious mode of treatment, and a long continued action of the noxious influences which gave rise to it, it may degenerate into a phlegmonous otitis, external or internal, instead of passing into suppuration; it seems more disposed to terminate in the exudation of lymph, thickening of the membranous structure, and thickening and opacity of the membrana tympani, as well also the membranes covering the various openings and canals. I have observed this indisposition to rheumatic inflammation of the ear in persons of a fine, irritable, and delicate skin, who have been weakened by previous diseases of long duration, evincing a great disposition to sweating, chiefly of the head; they frequently suffer from rheumatic pains of the teeth and head, and are generally of a rheumatic and gouty predisposition. The causes which bring it into action may be referred in a great measure to cold or some one determining influence, and accordingly, all that is required is a cold blast of wind to strike on the ear when heated, sleeping in a cold or damp room, rapid change of temperature. Two of the worst cases I had brought under my observation were brought on by travelling by railway, the head being unprotected during the night. It is particularly observable at the spring of the year or the approach of winter; produced by any of the causes of the catarrhal otitis, and arising also from a suppressed rheumatism, or translation of the disease from any other part of the body. The prognosis of rheumatic otitis may be inferred from the form it assumes; it is not a dangerous disease when the individual is otherwise healthy, when the inflammation does not run a very acute course, when the patient is enabled to draw himself from the noxious influence, and to adopt the measures necessary for treatment. On such conditions the inflammation may be dispersed, and the hearing perfectly re-established. This inflammation, however, attains a high degree of importance if it has attacked the internal structures, or has been left to itself for a long time; it occurs in individuals much debilitated, who are affected with a predisposing action before alluded to; and where the local as well as domestic circumstances of an injurious tendency are not speedily removed. If an early deposition of lymph takes place over, and in the layers of the membrana tympani, or possibly in the cavity of the tympanum, or even in the Eustachian passage, then, even in the most favourable cases, a greater or less degree of deafness or hardness of hearing remains.

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It will be observed that the cases in illustration of the treatment to be adopted in the acute stage of this disease more particularly point to the destructive influence it has over the middle ear, and the necessity of a frequent examination of the mastoid process, and the relief which follows the liberation of the integuments covering the bone, and also to the influence of *colchicum*, when perseveringly administered in small doses, over the distressing *tinnitus*, which is a constant attendant on both the acute and chronic states of rheumatic inflammation of those structures. There is another form of this disease which is sometimes presented to our notice, and which, I think, is more usually the sequence of the gouty predisposition, and which I shall treat of in the next contribution.

The plan of treatment in these cases, that I have found to be most effectual, will be gathered from the cases I am now about to detail.

Mr. Gill, a strong stout man, consulted me on the 18th of January, 1847, complaining of a severe pain in his left ear, with a benumbed sensation over the temporal and mastoid processes, and considerable tenderness on touching or combing the hair over that part of the head; he suffered also from the sensation of a heavy deep *tinnitus* in the organ of hearing. He informed me that about a month previously he had an attack of articular rheumatism, principally affecting both the knees, but occasionally invading the wrist and elbow. For this he was treated in the ordinary manner by his medical attendant. He was bled, leeches, purged, and I presume had *colchicum*, &c. This attack of illness confined him to the house for more than six weeks, during which time he had several paroxysmal attacks in the ear. After that time the rheumatic affection of the joints gradually subsided, and when he came to me he complained principally of a shooting throbbing pain in the ear, extending down the cheek bone, with tenderness and numbness over the mastoid process. On examination of the meatus, I found it in a swollen and inflamed state, so that I could not ascertain the condition of the membrane of the tympanum. The inflammation of the meatus was accounted for by his having had several hot and stimulating applications used internally and externally to the ear, during the paroxysmal attacks, on the supposition that they partook of the nature of *tic douloureux*. The mucous membrane of the throat was involved in the disease, and the tonsil on the left side was inflamed and considerably swollen, thus giving rise to some difficulty in deglutition. He was forthwith recommended to lose blood by cupping, and by the application of leeches over the mastoid process, and I determined besides to bring his system under the influence of mercury, which was exhibited combined with *colchicum*. This treatment was pursued for ten days, when the meatus of the ear was again examined, with a view to ascertain the condition of the *membrana tympani*. This I was enabled to do in consequence of the inflammation and swelling having yielded to the antiphlogistic treatment I had adopted, and I soon

satisfied myself that the membrane of the tympanum had lost its transparency, was of a brownish colour, and was bulging forwards, as if the cavity of the tympanum behind it were distended with pus. The pain he had previously suffered from was diminished in severity, but the *tinnitus* continued unabated. During this time he complained occasionally of flying pains in the joints. The case was examined from time to time, and as the pain and tenderness over the mastoid process continued, I carefully examined the part, but could not detect any sensation of fluctuation. As, however, the symptoms had continued so long, I recommended that an incision should be made over the process down to the bone, expecting then to free the integuments and inflamed periosteum. Mr. Gill experienced considerable relief, and, with the aid of an opiate he slept better that night than he had done for two months previously. The incision was kept discharging, the pain in the ear gradually subsided, and the tenderness disappeared. The *colchicum* was then administered, combined with quinine, and I am happy to say that my patient finally got well, although the *tinnitus* continued, with some diminution of the hearing, for upwards of a twelvemonth afterwards.

This case is interesting, as affording an illustration of the relief given to the patient, after the integuments over the mastoid process had been freely laid open, and the periosteum divided, although suppuration had not taken place. There cannot be any doubt that the cure was expedited by such a mode of proceeding; and we may remark, also, the effect *colchicum* has over the *tinnitus*, when long in action.

The next case I shall bring forward, was similar in many respects to that which I have just related, but it did not terminate fortunately, in consequence, I believe, of the obstinacy of the patient in wilfully refusing to submit to the operation of incising the integuments over the mastoid process, a proceeding that was urged upon her several times, but always unavailingly. The history of the case will shew that its termination was most unhappy, the patient losing the power of hearing on that side, and previously suffering from great constitutional disturbance and agony, the change of structure in the parts from the inflammation resulting in exfoliation of bone.

Mrs. W., in the winter of 1847, was seized with rheumatism in the joints, and was in consequence confined to her bed for three months. During that time, in addition to the rheumatic arthritis under which she laboured, she suffered from headache, and pain in the ear, a continued heavy *tinnitus*, a benumbed feeling over that side of the head, and a great degree of tenderness in the integuments covering the mastoid process. She could only obtain relief from these symptoms, by using drops compounded of laudanum and oil of turpentine. These were applied locally to the meatus, and somewhat lessened her sufferings. The pain and *tinnitus* still continuing, the former being less severe than it had been previously. I saw this lady in the succeeding February, (1848.) On examination, I found the meatus

much inflamed with a yellow discharge exuding from the passage, great tenderness all over the scalp, but more particularly over the mastoid process, where fluctuation could be felt but indistinctly. Induced by the relief afforded by the operation in the preceding case, I recommended her to have the integuments over the mastoid process freely divided, but she determinedly refused, and I was obliged to content myself with pursuing a strictly antiphlogistic course of treatment, by leeching and cupping the part, and by the internal exhibition of mercury combined with colchicum, as the next most likely plan to afford her relief. An opiate was given at bed-time, to secure a night's rest, and the passage of the ear cleansed, and injected with an astringent lotion. On examining the meatus soon afterwards, with the view to ascertain the condition of the tympanic membrane it was found to be swollen and inflamed, and at its under part an aperture or ulceration was detected, about the size of a pin's head. My patient presented all the indications of severe constitutional disturbance; she complained of great pain in the mastoid region, and the discharge from the meatus was sometimes tinged with blood. She was again strongly urged by Mr. Lawrence and myself to submit to the operation of dividing the integuments over the mastoid process, to prevent exfoliation of the bone, but her obstinacy was not to be overcome. The mercury was continued, but quinine was now given in combination, instead of colchicum, as it had become necessary to afford her some support, and strengthen her system to withstand the exhausting influence of her complaint.

In this way matters went on for some months, the patient suffering occasionally from renewed attacks of rheumatism in her joints, and the aural symptoms being aggravated during each paroxysm. Suppuration took place over the mastoid process, and a portion of the bone exfoliated, its separation being, as usual, a work of time and suffering. In the ear itself the disease continued to make progress, the ulceration of the membrane continued until very little of it remained, and all the small auditory bones came away with the discharge. As my unfortunate patient thus through her obstinacy incurred a large amount of suffering which she might have avoided, and also the loss of hearing and considerable structural disease, it was to me a matter of painful interest to watch the progress of this untoward case, until the principal structures of the ear were destroyed, feeling assured all the while that, had I been permitted to practise the incision over the mastoid process, as I desired, a very large portion of the suffering and mischief would have been prevented. The exfoliation of the bone would not have occurred, nor in all probability the destruction of the membrana tympani, and the loss of the ossicula auditus.

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CASE OF DISLOCATION OF THE SCAPHOID BONE OF THE FOOT.

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(Read at the Branch Meeting of the Association, held at Huntingdon, September 17th, 1850.)

DISLOCATION of the scaphoid or navicular bone of the tarsus is an accident of very rare occurrence; the position and the connexions of this bone render its displacement so improbable, that it is generally regarded as impossible that it should occur, "unless," as Mr. B. Cooper remarks in his "Treatise on the Ligaments," "it be attended with total destruction of the foot." To the extensive observation of Sir A. Cooper no such case had ever presented itself, the following therefore must be regarded as one of peculiar interest:—

On the 10th of June, 1850, a stone-mason, aged 40, and of a spare but sinewy form, in stepping from the top of a wall, eighteen feet high, to another about a foot lower, over an intervening space of about two feet, advanced his right foot, but stepped short, his toes only resting upon the wall, his whole weight being, in the act of stepping, thrown upon the right leg. The foot, as he says, "bent upwards, and something gave way." Falling down between the two walls, he found himself on the ground on his hands and knees, not hurt, as he conceived, by the fall, but quite unable to work, and his foot in great pain. He was carried home, and I saw him next day. He was in bed, and on examination my opinion of the case entirely coincided with that of Mr. Hanbury, our excellent house-surgeon, who had previously visited him. We found a bold projection on the dorsum pedis, in the situation of the os naviculare, and a corresponding depression beneath, where, in the normal condition, the tuberosity of this bone forms a distinct projection. Over the displaced bone the skin was tense and red, and over this point there was a good deal of pain on pressure. He could bend and extend the ankle-joint without difficulty or much increase of pain. I at first tried to reduce the bone by firm pressure with the thumbs, but it felt firmly fixed in its abnormal position, and I could not move it.

I then requested Mr. Hanbury to press the foot downwards, whilst I attempted to return the bone to its position between the astragalus and cuneiform bones, and with an audible snap it returned, and the deformity disappeared.

I then merely directed the foot to be kept quiet and fomented; but two days after, finding that the bone felt loose and easily moveable, with a tendency to slip upwards, occasioning the peculiar appearance of a slight dimple or hollow in place of its natural projection, a plaster and roller were applied.

He was confined to the house for three weeks. He then returned to his work, but continued slightly lame for about a month after. This morning (Sept. 16th)