

CHOREA AND RHEUMATISM.

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THE wide divergence of opinion concerning the relationship between acute rheumatism and chorea as cause and effect is well known. While, on the one hand, many observers maintain the existence of the closest connexion between the two maladies, asserting, indeed, that of all the causes of chorea rheumatism is most efficient; others, on the contrary, hold that this connexion has been greatly over-estimated, and that the cases of chorea which can be properly attributed to acute rheumatism as their cause are comparatively few in number. This being the case, it may be of some interest to record the result of an analysis of 146 cases of chorea observed at the Westminster Hospital during seven years (1881-87), in which series the actual relationship of the chorea to acute rheumatism (along with other matters) was accurately noted. The cases are given in detail in the Westminster Hospital Reports for the years mentioned, and from the summary which I prepared for the last report the following figures are largely drawn.

I have analysed these 146 cases of chorea with the object of ascertaining the percentage of cases which could be fairly ascribed to acute rheumatism as their cause. All these cases have been taken with great care and the facts most thoroughly sifted. Of the 146 cases only 9 (6.16 per cent.) could by any possibility be attributed to acute rheumatism as their cause. That is to say, rheumatism immediately preceded the attack, or the latter occurred during convalescence from acute rheumatism; whilst all other possible causes of chorea were entirely absent in only 9 cases. In 11 cases the attack of rheumatism occurred during the course of the chorea; in 15 cases acute rheumatism had occurred at some more or less distant period, the interval varying from six years to one month. Thus, some sort of relationship other than causal existed between the attack of chorea and the acute rheumatism in 26 cases, the total number of cases having any rheumatic antecedent being 35, or 23.97 per cent. A rheumatic inheritance existed in 47 cases, 32.19 per cent. The causes assigned by the friends in 94 cases (64.38 per cent.) was nervous strain (fright, distress, and school overpressure). As regards the condition of the heart, in 20 cases a persistent systolic murmur was audible at the apex, and of these 20 cases 11 had suffered from acute rheumatism previously. A murmur, constant neither in force nor rhythm, was audible over the region of the apex in 64 cases, this murmur entirely disappearing as the patient recovered. The number of cases having a neurotic inheritance was a trifle larger than that owning a rheumatic inheritance, the former being 49, the latter 47. There was an inheritance of phthisis in 14 cases and of gout in 4. As regards age, only 3 cases were under eight; between five and ten, 34 cases; between ten and twenty, 96 cases; between twenty and thirty, 10 cases; between thirty and forty, 1 case; between forty and fifty, 1 case; between fifty and sixty, 1 case. As regards the relationship as cause and effect between acute rheumatism and chorea, the figures given above agree with the results obtained by Dr. Sturges, who gives from 5 to 8 per cent. as the average of cases of chorea arising directly from acute rheumatism. In only twenty cases (13.69 per cent.) was there evidence of damage to the endocardium, yet I find from analysis of cases of acute rheumatism that between the ages of ten and thirty 27.7 is the percentage of cases having cardiac disease due to acute rheumatism. Should the ordinary teaching on the subject be correct, it is surely strange that acute rheumatism at the very age when the heart is most liable to be affected should in the case of chorea cause such affection in barely half the number of cases. It is still commonly stated in the text-books that rheumatism is one of the most efficient causes of chorea, yet several recent observations tend to results opposed to this view. No doubt the frequent presence of a cardiac murmur has led to the assumption of valvular disease, and of previous acute rheumatism, without care having been taken to ascertain whether the murmur was constant and invariable. As stated above, a fleeting murmur was audible in 64 of the cases analysed; but in every one of these cases it had disappeared at the time of the discharge of the patient, and there was no reason whatever to believe that

in any one of the cases the heart was damaged. Probably, were sufficient pains taken to investigate thoroughly the history of a series of cases of chorea, similar results would be obtained; but so long as vague pains in the limbs are admitted as evidence of rheumatism, and the mere presence of a murmur is considered satisfactory evidence of cardiac disease of rheumatic origin, for just so long will the ordinary views as to the intimate connexion between chorea and acute rheumatism be maintained. The number of cases having neurotic inheritance—49, or 33.57 per cent.—is greater than that having any other traceable inheritance. The large number of cases—94, or 64.38 per cent.—in which the disorder originated in some nervous disturbance (overwork at school, distress, shock), very significantly points to nervous stress of some sort as the most efficient cause. With regard to the other points brought out in the analysis (sex and age) comment seems unnecessary, as the results agree with facts already sufficiently well known.

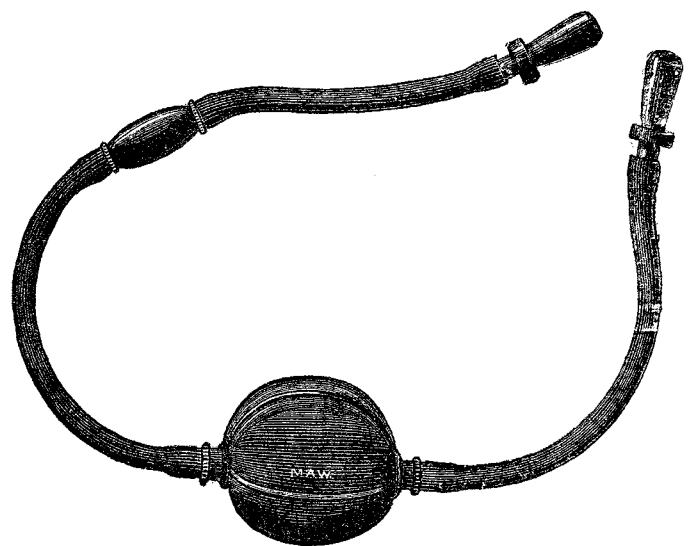
The following results were obtained:—146 cases of chorea: Acute rheumatism, as cause, 6.16 per cent.; rheumatic antecedents, not causal, 23.97 per cent.; nervous disturbance, as cause, 64.38 per cent.; rheumatic inheritance, 32.19 per cent.; neurotic inheritance, 33.56 per cent. Heart: Structural heart disease, 13.69 per cent.; heart affection other than structural, 43.8 per cent.

NEW AURAL INJECTOR AND EXCAVATOR, WITH A FLEXIBLE EUSTACHIAN CATHETER.

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SINCE the publication of my paper on Tinnitus Aurium, and its Treatment by a New Method of Alternate Injection and Evacuation of Air, I have considerably modified my apparatus, and have now adapted it for self-application. It consists of one hand-ball fitted with a recoil spring, which increases the force and rapidity of its expansion. (Fig. 1.) The injecting and evacuating tubes both terminate

FIG. 1.



in a vulcanite joint, to which a nasal piece of soft rubber can be attached. The nasal pieces are made in different sizes, and several of them are supplied with each instrument. When medicated air is to be used, the volatile substance must be dropped upon a pledget of cotton-wool, placed in the vulcanite box, which is fixed on the injecting tube. In this way I use chloroform, ether, creasote, pinol, and many other remedies. For the successful application of the treatment, it is essential that the patient should be instructed to practise injection and evacuation of the tympanum in the following manner: The nasal orifices must first of all be carefully wiped dry, and the nose pieces adjusted, so as to securely and completely plug the nostrils. The nasal tubes are now held in position by the forefinger and thumb of the left hand, and the hand-ball

is elevated and compressed by the right, and then allowed to expand by its own elasticity. During the steady performance of these movements the patient should take a full inspiration, and while holding the breath and pressing the lips together, he should make an expiratory effort, just as if he were in the act of blowing through a tube. With many patients the entrance of air into the tympanic cavity is rendered easy by the act of deglutition, for the muscular movements of the pharynx act directly upon the open ends of the Eustachian tubes. As a general rule, my patients require very little instruction, and soon become very skilful with the instrument. The alternate method presents many advantages over other forms of tubal inflation. It promotes the drainage of the tympanum and the discharge of pent-up fluid into the pharynx. It also proves of material assistance in cases of collapsed and adherent membrane. Its daily application is especially useful in the treatment of tinnitus aurium caused by abnormal tension, and also in other forms of chronic

middle-ear disease. The apparatus for alternate injection and evacuation with the Eustachian catheter is represented in Fig. 2. The tubes are joined together, and near their junction a vulcanite terminal is fixed for the insertion of the catheter. The flexible catheter is a flattened tube of soft metal, and it can be readily bent to any shape by protecting the bore with the stylette. (Fig. 2.) For the successful application of the Eustachian catheter, it is often necessary to adapt the instrument to the curvatures of the nose and pharynx. Sometimes the nasal passages are by conformation irregular, or they become tortuous and obstructed by morbid changes in the bone or lining membrane; in other cases the position of the tubal orifices and mucous folds of the pharynx require a special flexion of the beak. For some patients I keep a catheter always bent and ready. The instrument must be carefully washed and deodorised after each operation. In performing the operation of alternate injection and evacuation of the tympanic cavity, the hand-ball must always be attached to the catheter after its introduction. The surgeon should elevate and compress the

hand-ball with the right hand, and hold the catheter and close the nostrils with the left. At the same time he must direct the patient to practise the movements already described. During the expansion of the hand-ball the catheter should be drawn outwards for half an inch, for by this manoeuvre the evacuating power will be increased. Special care must be taken to prevent twisting or kinking of the indiarubber tubes. Sometimes the point of the catheter gets lodged in the folds of the pharynx, so that the injection of air is obstructed. When this occurs, the instrument should be rotated a little, and then replaced over the Eustachian orifice. If from any cause considerable difficulty is experienced in passing the flexible metallic catheter through the nasal meatus, I substitute for it a fine vulcanite instrument, which can be bent to any curve by gentle heat.

In conclusion, I desire to mention that all the instruments described in this paper have been made for me by Messrs. Maw, Son, and Thompson, of London.

Southsea.

DEATH FROM AN OVERDOSE OF MORPHIA.—The death is announced of Mr. Harwood Casson, physician and surgeon, of Worksop, Notts, under painful circumstances. The coroner's jury returned a verdict of "Death by misadventure from an overdose of morphia, taken to relieve neuralgic pains." The evidence showed that Mr. Casson had been a martyr to neuralgia, and could not obtain sleep without morphia. He also suffered from Bright's disease. The foreman, on behalf of the jury, expressed a feeling of deep sympathy with the widow and family.

FRACTURE OF SKULL THROUGH ANTERIOR FOSSA (?); SYMPTOMS OF COMPRESSION; TREPHINING; RECOVERY.

By F. H. WIGMORE, M.B. CANTAB.

W. W—, about thirty years of age, a tailor by trade and not a sober man, fell down a flight of stairs backwards on the night of April 23rd. I did not see him until May 6th, fourteen days after the injury. The history I obtained was as follows:—The scalp was slightly cut and bruised (scar seen on shaving the head) on the left side about half an inch above the superior curved line. His nose bled, and he was stupid like one suffering from concussion of the brain. From the date of the injury he became gradually unconscious, his articulation imperfect, and he spoke for the last time on May 4th. On May 5th urine and fæces passed incontinently. On the 6th he had two slight "fits" in the morning. When I saw him that night he was in a state of stupor, not so deep but that he could be made to open his eyes and mouth, though not to protrude the tongue. He had a slight fit while I was with him; the left arm and hand alone affected and drawn towards the middle line of the body. The pupils were natural and reacted to light. Temperature normal; pulse 100. Ten grains of bromide and iodide of potassium every four hours and a sinapism to the back of the neck were ordered.—May 7th: Had a good night. No fit until 9 A.M., and then several fits in succession. The right side of the face and neck involved; head drawn to the shoulder of same side; angle of mouth depressed; and platysma working violently. Both arms involved; the right more than the left. Breathing rapid and thick. Could still be roused, but with increasing difficulty. Pupils dilated. Temperature 100°; pulse 100.—8th: Has had a fit every ten minutes throughout the night (statement of woman who sat up with him). He was comatose and breathing stertorously. Cold sweat was thick upon his brow. It was evident that he must die in a few hours unless relieved by operation. Dr. Somerville, to whose advice and assistance I am much indebted, met me in consultation, and we agreed to trephine. The man being placed under chloroform and trephined at the seat of injury, the dura mater bulging into the wound, there appeared some roughness, as though the internal table had broken inwards below the opening, and another circle of bone was removed, but nothing to account for the symptoms was discovered. The needle of a hypodermic syringe was thrust through the dura mater into the brain in several directions, without result. Finally, I passed a fine aspirating needle across to the right side, and thus explored the other hemisphere and dura mater without result. Ptosis and internal squint of the right eye appeared. I loosely sewed up the wound, introduced a moderate drainage-tube, and dressed with antiseptic tow, first well dusting the parts with iodoform. At night I found him breathing quietly. Temperature normal; pulse 100. No recurrence of fits.—9th: No more fits. Has slept throughout the night. Takes food well. Can be roused, but soon falls asleep again. All his movements coördinate. Pulse quiet. Temperature normal. Breathes quite easily; has not micturated. The ptosis and squint have disappeared.—10th: Got out of bed and voided urine naturally. Put out his tongue on being asked; spoke. Recognised his child; temperature normal; pulse quiet. Wound healed at upper part.—11th: Went downstairs to watercloset; returned to bed. Recognised his family; would not keep the bandage on his head. The progress of the case from this point was characterised by complete return of speech and muscular power, with control over sphincters. Unfortunately he was obstinate, would walk out, having removed the bandage; became irritable when opposed; wished to go to work on Sunday, and went to bed in his clothes. The wound broke down and suppurated. At this point I advised his removal to the workhouse infirmary. I hear from his wife that he has almost completely recovered (June 25th), the wound having healed. He is rather simple in manner, but quiet and self-possessed.

Remarks.—There is very little doubt that this man suffered from fracture through the anterior fossa by contre-coup, and that subsequent increasing hæmorrhage produced the severe symptoms of progressing compression from which he would have died. The hæmorrhage, I should say, was