The vessels of the pia-mater were greatly distended with blood, and in the ventricle was found about the same quantity of fluid as was contained in the cyst.

An isolated case like this is perhaps more valuable for its rarity than for its practical importance, yet the recording of such is commendable, as it is possible that a future accumulation of similar facts may lead to results which we cannot now foresee. The case is otherwise of some interest, as showing the powerful influence of mercury in temporarily arresting the progress of the disease.

Dr. Storer intimated his intention of publishing some account of this case, along with other examples of hydrocephalus occurring in his practice, but on inquiry I could not learn that he ever fulfilled his purpose.*

The only case which I have met with at all resembling the above, is the *first* of Dr. Monro's, formerly referred to, and as it is in small compass, I will transcribe the author's own words.

"Case 1.—A stout man, 20 years of age, complained of constant headache, chiefly on the right side, followed by a dilatation of the pupil, and epileptic fits, which proved fatal to him."

"On dissection the cranium was found to be much thinner on the right than on the left side, particularly the right parietal bone, which in many places was not thicker than a wafer. On opening the right ventricle of the brain, a cyst, about the size of a goose's egg, was found within it, filled with a watery liquor, and surrounded by a gelatinous matter, which cyst did not adhere to the membrane lining the ventricle."

"Dr. Grieve Mackenzie, who had attended the patient, was so obliging as to send the cyst to my father, which appeared to me of the same structure as that of hydatids."—*Monro's Morbid Anatomy of the Gullet, &c.*, (1811,) p. 272.

Since writing my previous observations on hydatids of the brain, I have recovered some facts relative to the subject, which had been quite forgotten, and which it appears desirable to point out, for the sake of those who may be disposed to pursue the inquiry further.

1. I would refer generally to a valuable essay by Mr. Howship, on the "Generation and Growth of Hydatids," printed in the 43rd Volume of the *Edinburgh Medical and Surgical Journal*, p. 13, January, 1835, founded on a case of enormous hydatid tumours in the abdomen, communicated by Mr. Spilsbury, of Walsall. But, what I wish more particularly to advert to at present, is the description of a preparation, in his museum, of a specimen of cerebral disease, presented also by Mr. Spilsbury, "in which the right lateral ventricle of the brain became the seat of a considerable dropsical accumulation, containing a number of hydatids."—p. 19.

2. A very extraordinary case (briefly referred to by Mr. Howship) of hydatids, formed in the dioplœ of the

frontal bone, is minutely described by Mr. Keate, in the 10th Volume of the *Medico-Chirurgical Transactions*, p. 278.

The patient, when first seen by Mr. Keate, was a young woman aged 18 years, who six years before had first noticed a small hard tumour over the left eyebrow, which had now increased to the size of three-fourths of a large orange. The treatment was necessarily severe, and protracted. Two operations were performed: the first on the 3rd of April, 1815, the second, thirty-two months afterwards, on the 5th of December, 1817, when the outer table of the skull constituting the base of the tumour, was removed by the saw. Besides these, repeated applications of powerful caustics were employed for the destruction of the hydatid cysts, and other diseased parts, and ultimately in October 1818, a perfect cure was effected.

3. With reference to this subject also, I will venture to transcribe my notes of a dissection after death from traumatic tetanus, because, though no hydatid was actually found, I feel a strong persuasion that one had really existed during life. The case may likewise be applicable as part of the answer to Dr. Whiting's recent inquiry.

On the 20th of October, 1823, I witnessed the inspection of the body of a man who died in the Manchester Infirmary, on the fifth day, of tetanus, induced by a wound of the left hand. Dr. H. Hardie had treated him for three days with large doses of tartarized antimony. The brain was firm, without obvious derangement of structure; there was only a moderate effusion of fluid visible within the cranium, but the theca vertebralis was filled with it, the spinal cord exhibiting no other unnatural appearance. On the surface of the right lobe of the cerebellum was a considerable *depression*, as if caused by the lodgement of an hydatid between the *pia mater* and tentorium, though there was no other trace of such body observed. The mucous coat of the stomach and intestines was highly vascular, and of a dusky hue throughout.

Professor Alison, of Edinburgh, was casually present during the examination.

July 11, 1850.

ON

RHEUMATIC AFFECTIONS OF THE EAR.

By WM. HARVEY, Esq., M.R.C.S.L.,

SURGEON TO THE ROYAL DISPENSARY FOR DISEASES OF THE EAR.

RHEUMATISM affecting the structures of the ear, has hitherto, as far as any researches have enabled me to ascertain the fact, almost entirely escaped the notice of the profession. Having met with several cases, during the last few years, of rheumatic affections of that organ, both in the acute and chronic stages, and having carefully traced their progress, in some instances, to the establishment of serious and permanent mischief, and

* This case has been publicly mentioned before, but not in print. I read an account of it before the Medical Society at St. Bartholomew's Hospital in 1811, and in December, 1814, communicated the same to Dr. James Gregory, who was pleased to read it to his class whilst lecturing on the subject of hydrocephalus.

in others to ultimate recovery, I have deemed it my duty to call the attention of my professional brethren to the fact, that such diseases are to be met with, and to endeavour to point out the diagnostic and pathognomonic symptoms by which they may be detected, and also to detail the treatment which I have found to be most likely to be attended with success.

The study of the natural history of diseases must be always an object of paramount importance. To pursue it with advantage, we must endeavour to trace the earliest symptoms of disease, and ascertain their connexion with each other, to mark their progress as the disease advances, as well as to discover the effect they produce in the induction of morbid changes in the part affected. From a series of observations carefully conducted, we are enabled to draw most valuable inferences as to the character and nature of a disease, and its tendency to a spontaneous recovery, or to a fatal result, if unchecked or unmodified by the resources of art. The real state of the different organs and their functions during a morbid condition of the system would be more clearly and fully ascertained, and we should be enabled more accurately to diagnose the changes in those organs and the alteration of their functions, as well as the degree or extent to which those changes are carried, and we should also be able to discover the leading and pathognomonic symptoms, if such a series of carefully recorded observations had been made for some time respecting it. They would be especially useful in enabling us to form a correct judgment as to the real value of the various remedies which theory and experience combined lead us to employ for their cure, for it must be confessed, there is nothing upon which a practitioner has greater difficulty in making up his mind than as to the effects of medicines, nor is there anything in the whole science of medicine upon which there is a greater difference of opinion.

In the disease now under notice, it has been, I fear, too much the practice, to trust to its advancing to a spontaneous cure. Or else, where its real nature and origin have not been discovered, it has been allowed to proceed unchecked, or nearly so, until serious alteration of structure has supervened. If, however, a judicious employment of such medical and surgical treatment as analogy would lead us to have recourse to, from its having proved eminently efficient, when rheumatism has attacked the neighbouring organ—the eye—were carried out with patience and perseverance, and with a due attention to constitutional differences, many an unhappy sufferer might be saved from severe bodily pain, perhaps from the loss of the function and alteration of structure in the organ of hearing, and perhaps even from loss of life itself.

These reflections were excited in my mind in consequence of an investigation which I made into the causes of the disease in numerous cases of acute and chronic deafness, which are, and have been, continually falling under my notice. I satisfied myself during this investigation, that cases of rheumatic disease of the ear are of comparatively frequent occurrence, and further, that by appropriate medical and constitutional inter-

ference they are rendered very amenable to treatment. My attention was first directed to this disease, from the well-known fact that the eye is not unfrequently affected secondarily in some individuals during an attack of rheumatism, and I was soon induced to seek for a pathognomonic symptom, by which the existence of rheumatic disease affecting the organ of hearing might be recognized. It has been stated that the eye is rarely implicated in the disease, until after the patient has suffered from two, three, or more attacks, that is to say, not until after the system has become saturated with the poison of the disease. The same fact does not hold good with regard to the ear; for I believe, when rheumatism occurs, one or other of the structures of the ear become affected very soon. As in the eye, it may be difficult to state decidedly which of the structures is first implicated, but I am of opinion that the fibrous and periosteal coverings are the first engaged in the disease, and that it spreads thence to the other structures, leading to the ultimate destruction of the organ.

Males are far more liable than females to suffer from the acute rheumatic affections of the ear, as far as my experience at present leads me to judge. In the ordinary course of symptoms the ear does not seem to be implicated until the subsidence of the rheumatic affection of the joints, and sometimes even not until convalescence is somewhat advanced. The patient, after suffering for a longer or shorter time from the usual symptoms indicating a rheumatic attack affecting the larger joints, whether it be or not the first time he labours under that disease, begins to suffer from some undefined unaccustomed sensations about one side of the head. The scalp generally is tender, and exceedingly painful on pressure, and even sometimes on the slightest touch. The temple on that side, all the parts above the ear, the mastoid process, and even the neighbouring portion of the cheek, are the seat of a morbid sensation, with considerable pain; and the patient complains also of a deep heavy tinnitus, of a most distressing character. On making an examination of the ear, the lining membrane of the meatus, and the membrane of the tympanum, are found to be swollen and inflamed, and the latter has lost its transparency. Of course the sense of hearing is more or less impaired. The throat on the same side partakes in the disease; the parts around are swollen, and of a livid red colour, the inflammation extending up the Eustachian tube. The tonsil on the same side is engaged in the inflammation, causing, with the aid of the diseased condition of the other parts of the throat, considerable pain and difficulty of swallowing. The parts involved in this rheumatic attack, as a matter of course, exhibit all the symptoms of febrile excitement, presenting, however, generally the characters of an intermittent fever. Exacerbation of all the symptoms takes place towards night, as usually occurs in disease of a rheumatic origin. The neighbouring organ—the eye—is sometimes inflamed before the ear is attacked, sometimes consentaneously with it, and sometimes not until after the disease of the organ of hearing has made some progress.

If the disease be allowed to proceed unchecked by

any remedial proceedings, or, what is still worse, if its nature be mistaken, and it be regarded as a neuralgic or nervous pain affecting the ear, and treated by hot and stimulating local applications, all the symptoms will become more and more intense, the inflammation in the meatus and of the tympanum will induce such an amount of swelling as to preclude the possibility of examining its condition, suppuration will take place in the tympanal cavity, and will induce ulceration and ultimate destruction of the membrane, with consequent otorrhœa, and the usual results attending unchecked inflammation and suppuration of that cavity. Nor will the mischief end there; the inflammatory action has already extended to the mastoid cells, and their periosteum, as evidenced by the deep-seated pain and the tenderness of the part, suppuration will ensue, and caries or exfoliation will follow. And here again, although I have not yet seen such a result, we may expect, in some very bad cases, to meet with still greater mischief; the inflammation may extend to the internal ear, and terminate in suppuration, and then, as it has already frequently occurred in other instances of disease of the ear, in which that termination has happened, this inflammatory action has extended to the dura mater, the suppuration has made its way by caries of the bone to the internal part of the cranium, and has ultimately caused death by inflammation of the meninges and pressure on the brain itself. I say not that such results will follow the neglect of this very serious malady, but we are warranted by analogy in concluding that such a termination of the disease may occur in cases where the disease manifests itself with extraordinary activity, and no remedies are used to arrest the progress, or where measures are employed the tendency of which would be to increase the mischief already going on in the parts.

Some may be unwilling to believe that so much inflammation, and such serious disorganization, can follow a local attack of rheumatic periostitis. To these I would commend the following paragraphs from Dr. Williams's work on the ear; although they do not refer to the progress of caries having a rheumatic origin, they tend strongly to show the rapid progress that caries may make in this honey-combed bone; and I shall show hereafter by the cases I shall detail, that the symptoms he speaks of as evidencing the advance of suppuration and caries from the tympanum to the mastoid process, do occur in the rheumatic periostitis of the ear. Dr. Williams says (p. 163):—"Caries may occur after the mastoid process."

Dr. Williams speaks merely of suppuration and caries as a consequence of otitis, and I describe similar results as following a rheumatic variety of that disease.

The latter part of the article of both paragraphs, in which allusion is made to the petrous portion of the bone becoming carious, confirms the opinion I have enunciated, that though caries may involve various parts in the disease, the matter may work its way into the cranium, and cause death by meningeal inflammation and suppuration.

2, Soho Square, July 6, 1850.

[To be continued]

MALIGNANT DISEASE OF THE EYE-BALL: EXTIRPATION AND RECOVERY.

By W. NEWNHAM, Esq., FARNHAM.

As the following case may prove encouraging under similar circumstances, and as the patient is now in perfect health at the distance of twenty-three years from the operation, I venture to think it may not uselessly occupy a small portion of the *Journal*.

CASE.—George Gates was first seen by me on the 8th of July, 1827: he consulted me about a tumour of the eye-ball, which had been gradually increasing for the last fourteen months. Three years since he lost the sight of that eye. In appearance it is generally a little more prominent than usual; underneath the cornea, and covered by the lower eyelid, is a considerable lobulated prominence of a dark blue colour, and which, from its recently rapid increase, is evidently hastening on to ulceration; the pupil is largely dilated; the iris immoveable; and through it is seen a tawny brownish-coloured substance.

After due consideration, I determined this to be a specimen of malignant fungus, although hitherto its growth had not been accompanied by intense pain. The patient's countenance is of a leaden hue, but there are no marks of other organic irritation going forward in the system. Considering the miserable suffering and final exhaustion which threatened the patient on one hand, and the doubtful prospect of safety on the other, I did not hesitate to advise the extirpation of the eye; and the patient consenting at once, the operation was performed on the 16th of the same month.

The patient being seated in a chair, the external canthus was divided, a needle armed with a ligature was carried through the globe, and given to a friend to hold steadily; a double-edged scalpel was then introduced at the inner canthus, and carried along to the outer, on the lower floor of the orbit; and the same proceeding was then employed for the upper. In effecting these movements some embarrassment arose to the operator from the yielding of the conjunctiva, &c., before the knife, so that it was partially carried *forward with it*, rather than *divided by it*. These incisions were, however, speedily completed, and the scalpel was then carried deeply backward to the bottom of the orbit, its handle being kept close to the upper edge of the latter, and the profound connections divided from above downwards; the same operation was repeated on the inner side of the orbit, and the eye-ball was removed. A portion of the lachrymal gland remaining was then removed, as also some little fatty matter and cellular membrane, together with the caruncula lachrymalis. Considerable hæmorrhage followed the division of the ophthalmic artery, which, however, stopped of itself, and a compress of wetted linen, supported by a roller, being applied, the patient was placed in his bed. Before this was accomplished, however, he vomited freely. A dose of Battley's sedative, in camphor mixture, was