

tial, and consequently there are none whose disorder is more aggravated by their want. We would also say, there are none who are less in a condition to bear the irritating applications to which they are so frequently subjected; it is, in fact, to add fuel to the flame.

The extreme pain upon pressure of the spine in some of these cases is very remarkable; we have seen it produce syncope. This intensity of pain we regard as characteristic of this irritation as contradistinguished from disease of the spine. It is thus that we have seen abdominal tenderness dependent upon this nervous irritation mistaken for, and treated as peritonitis.

ART. XII.—*Periostitis of the Orbit, with some Observations.*

By JOHN HAMILTON, L. R. C. S., &c.

THE diseases of the orbit are often of so obscure a nature, and from the proximity of the brain and organ of vision, unless rightly understood, give rise to such alarming symptoms, and from improper treatment, lead to such disastrous results, that I am induced to relate the following case of periostitis, by no means a common disease in that situation, and which, besides its rarity, offers some other points deserving of attention.

Mary Falkner, æt. 33, florid complexion, married, and has had three children; the two first alive and healthy, the last a miscarriage, at seven months, came to me at the South Eastern Dispensary, complaining of great pain in the left eye, and side of the head, with impaired vision. A considerable protrusion of the eye-ball was at once observable; the eyelids, especially the upper, were swollen and puffy looking, filling up the usual depression beneath the eye-brow, of a dull red colour, streaked with veins. The eye-ball presented no marks of inflammation, a few tortuous veins being alone seen at its upper and inner part. The iris was of a greenish hue; the pupil natural as to size, but not shape, being oval from side to side,

and at the upper and back part a bright green spot, of irregular shape and metallic lustre, was very distinct. The pain complained of was most intense, referred to the eye-ball, but darting into the head, the whole left side of which was affected ; worse at night, and depriving her of sleep. It was aggravated by the least motion of the body or eye, and by lying on that side. There is also a distressing feeling of sand in the eye, probably produced by the friction of the tense eye-lids over the protruded ball. Sight is much impaired, objects appearing misty and indistinct, and on looking down double, *muscæ volitantes* are constantly before the eye. She is subject to giddiness and lightness of the head ; pulse quick and full, tongue furred.

Three months ago she miscarried, and supposes she got cold ; the eye became painful, and the eyelids red and swollen. Since then the pain has gradually increased, and vision equally diminished.

At first sight, I was inclined to set it down as an incipient case of fungus hæmatodes ; and though usually the first approaches of that disease are not marked by such pain, yet even in this respect it bears a remarkable resemblance to some of the cases related by Mr. Wardrop ;* and in the appearance of the eye itself, was precisely what he describes, and what I had myself previously seen. But the woman's florid complexion and healthy appearance, and the vision still continuing, though impaired, led me to doubt the soundness of this opinion. The next most obvious things were, the presence of matter, or some tumour in the orbit, but the most careful examination failed to detect either. As the symptoms were such as would, at least, warrant the conclusion that some of the tissues of the part were inflamed, I resolved, though in much doubt, to try the effect of antiphlogistic treatment. Leeches, cupping, blisters, and active purgatives were resorted to without the least benefit ; and

* Wardrop on Fungus Hæmatodes, p. 44.

finding the symptoms daily becoming worse, I brought her to a surgeon, in whose judgment and experience I completely confided. He would give no decided opinion as to the nature of the disease, but his prognosis was most unfavourable. He recommended the trial of small doses of the oxymuriate of mercury; but, as the stomach was now so irritable that this medicine could not be borne, it was given up; and after some little time I got her admitted into the Meath Hospital.

The prominence of the eye was now so much increased, that it had the appearance of being larger than the other, and the eyelids could not be completely closed; the protrusion was in the direction downwards and outwards. The pupil, dilated a few days before by the extract of Belladonna, has never since returned to its natural size, but now appears prevented from closing by the lens being pushed against it; it had still the same oval form; the lower edge of the iris was turned in; the metallic spot was much more forward, and now seemed to occupy the whole of the pupil, giving it a greenish and rather opaque look; a small, brown, waving line, like a vessel, was seen crossing it. She got no relief from the pain night or day, and though mitigated for a short time, by leeching, it soon returned worse than ever; the stomach, too, became so irritable that nothing would stay on it, and the vision was reduced to distinguishing dark objects between her and the light. Though the irritability of stomach was allayed by the application of a blister, the other symptoms became worse, in spite of a variety of treatment, and she left the hospital hopeless of getting any relief.

Although different views were taken of the case by the experienced surgeons of that institution, yet the general impression was that it was decidedly malignant, an opinion after the description I have just given, that was certainly most reasonable; and I am inclined to believe, that had not the extent and severity of the pain in the head referred to the inside, intimated the likelihood of the disease being deep-seated, if not to the extent of

engaging the brain, the question of the excision of the eye would have been seriously considered, which the woman, from her suffering, would readily have consented to. It was about a week after she left the hospital that I first detected what the disease really was. On carefully examining the eye I pressed hard on the orbit, and so much pain was given, that the existence of periostitis in this situation instantly struck me; and further examination shewed the whole upper and inner part of the orbit, as far as the swollen lid allowed me to examine, to be equally tender, leading to the conclusion that the disease extended still further back. An explanation of the phenomena of the case became easy; the inflammation of the periosteum and the consequent effusion between it and the bone fully accounted for the pain, swelling, protrusion of the eye, &c. ; and she now, for the first time, confessed that she had been disordered by her husband eight years previously, had taken mercury; but shortly after, an eruption with (apparently) irritis had shewed itself, and subsequently sore throat, and occasionally, for the last few years, pains in the bones. The disease being understood, the treatment became obvious; she was put on calomel and opium, with the decoction of sarsaparilla, and at the end of six weeks' salivation having taken place, she had lost all pain, had regained her health and spirits; the eye had nearly returned back into the orbit, the swelling had left the lids, and vision was sensibly improved. In this state she was taken to the Meath Hospital to shew the improvement that had occurred. I met her a few days ago, nine months since she first came to me; there is no difference between the two eyes in appearance; her sight is tolerably good, though still misty, and she has not experienced any pain since.

The above case forcibly exhibits the difficulty of diagnosis in periostitis in this situation, though had the mistake merely rested with myself, I should not have thought it important enough to dwell upon. Mackenzie, whose vast experience in diseases of the eye entitles his opinion to the greatest weight, acknowledges this difficulty, and after stating the causes to be

the variety in the pain, and the appearances of the eye and eye-lids, &c., says: "neither can we pretend to decide in cases of this dubious kind, whether thickening merely of the periosteum, thickening of the bones, or such a tumour as we call exostosis, be the cause of the exophthalmos:"* and again: "the extirpation of the protruded eye-ball has also sometimes been resorted to in cases of exostosis of the orbit, where the symptoms were too obscure to lead to any decided diagnosis."† We have already mentioned the circumstances which probably prevented that extreme measure being resorted to in the present instance.

It may be useful to consider in detail some of the more prominent features in this case, viz.: the protrusion of the eye-ball, the redness and swelling of the eye-lids, the pain, and the metallic spot at the bottom of the eye. Mackenzie, who has written more clearly on this subject than any writer I am acquainted with, observes, that "when the bones of the orbit inflame from syphilis, after pain in the seat of the disease, not in general acute, there forms a tumour of the eye-lids, slightly red at first and but little painful to the touch; but which slowly advances in redness, pain and size, till it is felt to be fluctuating, and either bursts of itself, or is opened by a lancet; but patients rarely apply till the abscess has burst."‡ This, however, can be but a rare form of disease, and as a termination of periostitis is uncommon, the effects of inflammation on the periosteum are various, according to its acute or chronic character, its being idiopathic or the result of syphilis, scrofula and mercury. Its terminations may be classed under six heads, viz.—

Ist. Simple thickening of the periosteum, sometimes to the extent of half an inch or more.

2nd. An effusion of serum between the periosteum and bone.§

* Diseases of the Eye, p. 46.

† Ibid. p. 34.

‡ Ibid. p. 47.

§ When a node becomes inflamed, red, swollen, and tender, and fluctuation is distinct, the exit of pus is generally looked for on opening it, and so pus is often discharged; but I have seen several instances where the fluid let out was a reddish serum.

3rd. A deposition of a cartilaginous substance between the periosteum and bone, often going on to the next division.

4th. A bony deposit in the same situation.

5th. A cheesy matter, often accompanied by inflammation of the bone itself, and followed by caries and exfoliations of bone. This occurs in scrofulous constitutions, broken down by syphilis and mercury.*

6th. The effusion of pus between the bone and periosteum, generally the result of the acute form.

In the five last, there is always more or less thickening of the periosteum itself, and though sometimes absent, more or less redness and cedema usually present themselves. In the present case I conceive the inflammation to have terminated, first in the effusion of serous fluid, between the bone and periosteum finally becoming cartilage; for had it been mere thickening of the periosteum, the protrusion of the ball would scarcely have been so great; had it been bony, though the pain and other symptoms might have been subdued, the bony mass remaining would have still kept up the exophthalmia, or only disappeared after protracted treatment, had it been either cheesy or puriform, the disease would have had a more rapid course, or the exhibition of mercury in one case been injurious, in the other ineffectual to remove

* It may not be uninteresting to give the dissection of a node of this description, which had been opened previous to death, and discharged a cheesy matter. Where the skin had been red round the opening, the cellular tissue was found vascular, and matted together with the skin and fascia. A few inches beyond the centre of the disease, the periosteum was first seen quite healthy; a little nearer slightly vascular; nearer still, filled with many vessels, thickened, and hard to be separated from the bone, which itself was redder than natural, rough and soft, being easily sliced with the knife. This condition of the bone gradually increased, the cut surface showing great vascularity, till at length, for the size of half-a-crown or more, it was deprived of periosteum, more prominent, rugged with small loose dead pieces of bone, and in the centre a larger piece quite dead, of a pale yellow colour, appearing all earthy matter. The whole of this surface was covered with a thick yellow inodorous pus. In one place the periosteum was greatly thickened, and almost like cartilage.

the pus: it is obvious that mere œdema would have been insufficient to have protruded the eye to such an extent, were not the cause, from the uniform direction of the protrusion, plainly a fixed one.

It will be observed that the pain, both in degree and extent, was unusually severe, and formed one of the most prominent and distressing symptoms; and though the severity of the pain in periostitis has been often insisted on, it yet appears that little stress has been laid on its *extent* beyond the limits of the part actually diseased. Experience, however, of the inflammation of the periosteum, in common with the other fibrous membranes, informs us, not only how acute the pain is, but how very extensive is the continuous sympathy.

I recollect a case where the disease was confined to the extent of the size of a shilling on the tip of the acromion of the scapula, yet from whence at 7 o'clock every evening, the pain began darting up along the side of the neck, behind the ear, and across the temple and forehead, and so intense as to cause the eyes to overflow with water. I have also knowledge of two other cases, one of which I attended myself, in both of them the periostitis occurred at the lower end of the sternum and sternal ends of the ribs at the left side. In one, previous to my seeing it, the excited action of the heart about the tumour, causing violent pulsation, was so great, accompanied with dyspnœa, that the surgeon was inclined to regard it as a case of thoracic aneurism; in the other, from the excessive palpitation and strong impulse, it was considered to be disease of the heart, and with this view digitalis administered for some time in vain.

It has been already observed how exactly similar the metallic spot at the bottom of the eye in this case, was to that of the incipient stage of fungus hæmatodes. In the examination of all doubtful cases it is important to bear this symptom in mind, as it was dwelt on by every one who saw it, and tended perhaps more than any other to mislead the diagnosis. As the disease advanced, the spot became larger and more forward, and

presented precisely the appearance mentioned by Mr. Travers, of a coloured blood-vessel passing across it. It was obviously caused in this case by the pressure forward of the back of the eye by the tumour in the situation of the periostitis.*

The redness and swelling of the eye-lids will present itself as a sign of inflammation of any of the structures within the orbit ; the formation of abscess in the cellular tissue here is perhaps the most common. It was not overlooked, but where abscess forms, there is a hard, flaggy feel, which softens, and finally fluctuates at a point ; here the swelling was uniformly soft and flabby. The same difficulty attends this in common with the other symptoms, which the following case I saw under Dr. Stokes, to whose kindness I am indebted for the particulars, will best illustrate.

A man aged 40 experienced for four or five days a most racking pain in the right orbit, side of the head and temple. When he came to hospital these symptoms were getting worse, attended with high fever, but no derangement of the intellectual functions. The most active antiphlogistic treatment was resorted to for four days, without any alleviation ; at the end of which time in the course of one night the eyelids became enormously tumid and red, which extended for a certain distance to the temple and cheek ; the eye was extremely protruded downwards and outwards, but vision not impaired. It was now thought the symptoms might be all attributed to the existence of an abscess in the orbit ; an incision was accordingly made through the upper eyelid, but though first a scalpel, then a bistoury were plunged very deep, no matter issued out : a poultice was ordered ; and next day no pus having appeared, a bistoury was swept nearly right round the eye, and so deep as almost to endanger the optic nerve. This was not more successful than the former operation ; every symptom became aggravated, and on the fourth day he became stupid, and soon expired ; his intellect

* Travers' Synopsis of Diseases of the Eye, p. 219.

and vision continued unimpaired till within the last few hours. A post-mortem examination shewed the swelling in the orbit to depend on the effusion of serum, no matter being discovered, but a circumscribed abscess existed in the right anterior lobe of the brain, the rest of the brain being healthy. In the case of Master T., related by Mr. Crampton in vol. i. of the Dublin Hospital Reports, where matter was effused between the periosteum and bone of the roof of the orbit, the swelling of the upper eyelid extended beyond the brow.

A few days since I treated a case of periostitis occurring over the external angle of the orbit, in which an œdematous swelling of a pale red colour occupied the eyelids; indeed it is next to impossible that periostitis could exist in the orbit without such swelling. I am therefore inclined to look upon this appearance, the peculiar shrinking tenderness when pressure is made on the bone, and the existence of a pain with periodical nightly exacerbations, as the most valuable signs in the early stage of periostitis in the orbit; the exophthalmia change in the appearance of the eye and impaired vision to be looked for in the latter stage, when effusion has taken place, and truly when the disease has advanced to this stage, as in the case I have related, it becomes a matter of the greatest difficulty to give a decided diagnosis.

Having mentioned the fact of this affection having been mistaken for one of a more malignant character, it may be well to relate a very well marked case of fungus hæmatodes of the eye, where I saw the eye removed by Mr. Porter, which while it presents some common and striking points of resemblance with Falkner's case, offers other no less obvious points of difference, such as rapid progress, quick loss of vision, change of structure, and shattered health, that may in doubtful cases serve to clear up any difficulty. It presents likewise a rare instance of the non-recurrence of the disease.

Maria Richardson, aged 23, always of a delicate habit; married twelve months ago; two months since had a still-born child; immediately after her confinement she was attacked with

dimness and pain in the left eye, accompanied by very severe rigors, and a sensation of a small foreign body, like sand, between the lid and ball of the eye; she says her eye was red and looked swollen. From the second day of this attack she was unable to distinguish dark from light; her eyelids were swollen; no discharge of mucus, but profuse scalding lachrymation; the pain in the eye and left side of the head was intense, and prevented her sleeping; she was salivated, blistered, and leeches, without relief, the leeches rather appearing to aggravate the pain. When admitted into hospital the upper eyelid appeared swollen and of a purple red colour, the eye constantly closed, and a great discharge of tears; the eye-ball extremely prominent; the conjunctiva inflamed, with little knobs on it formed by vessels; the cornea is rather opaque, seems thickened, and is very prominent; the anterior chamber is obliterated, the iris lying against the cornea; the iris of a dark brown colour, the healthy one being of a greyish blue; on looking to the bottom of the eye there is a shining metallic appearance, and the lens is dislocated and pushed forwards; pain in the eye, temple, and left side of head, severe.

Mr. Porter removed the eye.

On making a section of it, a quantity of brown matter gushed out; the anterior chamber was obliterated, the iris resting against the cornea, being pushed forward by the lens, which was of an amber colour; the lens itself was pressed forward by a fungus, which adhered firmly to the choroid and retina, but did not engage the sclerotic. The fungus anteriorly consisted of a white consistent matter, and of the brown matter contained in two cysts; it nearly filled the posterior chamber: the optic nerve was sound. The operation was performed in June 1833, and Mr. Porter informs me that he lately saw this patient quite well.

In a paper, the objects of which is mainly to shew the difficulty of diagnosis of periostitis in the orbit, and the general obscurity which attaches to all diseases occurring in this situation,

or affecting it from contiguity, little observation will be expected on the treatment. The manner of treating periostitis here is of course the same as elsewhere, and is generally well understood. It is a very manageable disease; and from the many opportunities I have had of witnessing the practice of others, and from my own more limited experience, I have no hesitation in saying that mercury is by far the best and most certain means of cure. I do not mean to assert that it does not yield to other means, on the contrary I have observed the decoction of sarsaparilla with nitric acid, tincture of hyosciamus, or liquor potassa, and especially Dover's powder, successful in numerous instances, and where the disease is the result of cold caught while taking mercury, or in cachetic broken down habits, are often the most judicious means. But they are usually tedious and frequently fail, and among the numerous applicants at the dispensary with this disease, after giving these remedies a fair trial, I have been obliged to resort to small doses of the oxymuriate of mercury, and so rapid has been the return to health, generally in about ten days, after weeks of pain and sleepless nights, that it has been a cause of regret, that it had not been given sooner. Nor have relapses, always to be looked for, appeared the least more frequent (and this I have carefully noted) in those cured in this way, than in the others, whether idiopathic or specific, relieved by the non-mercurial plan. The oxymuriate of mercury in small doses in the chronic form, and calomel and opium in the more acute, with local bleeding and blistering, generally succeed in removing the disease. When it becomes either very obstinate or violent, and and where situation permits, the plan first insisted on by Mr. Crampton may be required, that of dividing the inflamed periosteum. Perseverance is of all things necessary, and even where a bony deposit has taken place, we should not despair of removing it. A case is mentioned by Bryer of a man who had a syphilitic bony node in the maxillary sinus, which protruded through the orbit and displaced the eye, but which was not

completely cured till he had taken the oxymuriate of mercury for three months, to the amount of 128 grains. I have had very little experience of the influence of the hydriodate of potash on the disease. In a very well marked case of periostitis of one of the meta-carpal bones, with chronic phagedenic ulceration of the pudenda, although the latter was completely cured, the inflammation of the periosteum was not in the least degree affected by it.

ART. XIII.—*Case of Aneurism of the Aorta, with Disease of the Semilunar Valves, attended with some Peculiar Symptoms.* By DAVID HASTINGS MAC ADAM, M. D., one of the Physicians of the City of Dublin Hospital, of the South-eastern General Dispensary, and Assistant Physician to the Institution for Diseases of Children, Pitt-street.

[Read before the Surgical Society of Ireland.]

MARY WILLIAMS, æt. 35, a widow, of a leucophlegmatic temperament, and a large frame of body, was admitted into the City of Dublin Hospital on November 23rd, 1835. She states that she has been subject to cough, with copious expectoration, dyspnœa, and occasional hæmoptysis, for several years; also to fits of palpitation, aggravated by walking, especially by ascending stairs, sometimes accompanied with oppression and tendency to syncope. About a year and a-half before admission her catamenia ceased, since which she has suffered from severe pains in the loins and right hypochondrium, anorexia, irritable stomach, and coppery taste in the mouth; urine small in quantity, and of the colour of porter.

About six weeks previous to admission she felt a sort of tension and lassitude in the lower extremities, accompanied with abdominal pain, chiefly in the epigastrium and both hypochondria, especially the left, aggravated by coughing; also, some pain across the small of the back; tenesmus and urgent