Cases of the hydatid cysticercus cellulosae in the sub-conjunctival cellular tissue, and in the anterior chamber of the human eye / by Edwin Canton.

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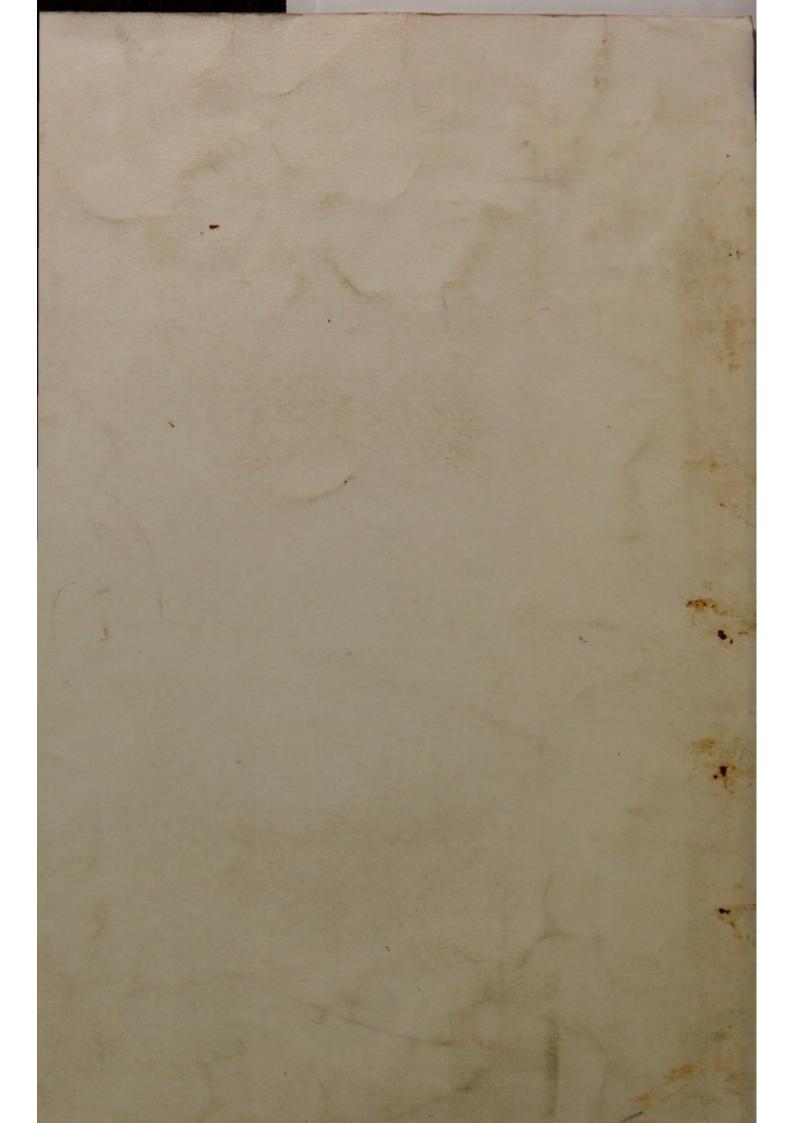
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CASES

OF THE

HYDATID CYSTICERCUS CELLULOSÆ

IN THE

SUB-CONJUNCTIVAL CELLULAR TISSUE,

AND IN THE ANTERIOR CHAMBER OF THE HUMAN EYE.

By EDWIN CANTON, F.R.C.S.

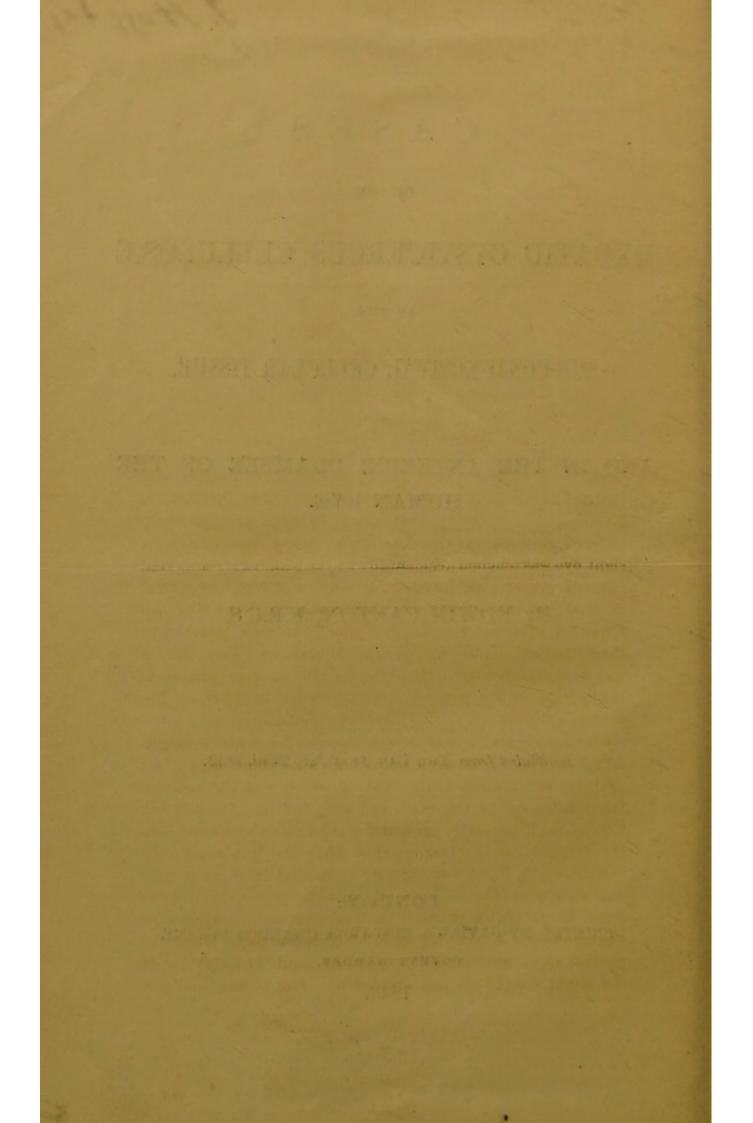
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1848.



CASES.

CASE 1.—Wm. S—, aged two years and seven months, was brought as a patient to the Royal Westminster Ophthalmic Hospital. The child is of strumous diathesis, and has never suffered from illness since its birth. Seven months ago, its right eye was touched accidentally by the point of an umbrella, without giving rise, however, to any unpleasant symptom. A week or two afterwards, the father, on depressing the lower lid, observed, for the first time, a tumour attached to the eyeball, about the size of a small pea, and which the lid had entirely concealed from view. The tumour has, from that period to the present, been slowly and steadily on the increase, without producing any inconvenience.

The lower eyelid was now noticed to be slightly bulged forwards, near the inner canthus, and, upon depressing it, an oval tumour projected, the seat of which was the cellular tissue between the sclerotica and conjunctiva. Its size was that of the little finger nail, and it had so encroached upon the inferior palpebral sinus, that when the lids were even widely apart, it was completely concealed from view. Its consistence was that of soft jelly, and the colour, so far as it could be judged of through the rather vascular conjunctiva stretched over it, was yellowish. Vision was perfect, and the general appearance of the eye healthy, with the exception of the slight congestion just alluded to. The tumour did not appear to cause the child any annoyance, or to interfere with the movements of the eyeball or lids, but the father wishing to have it removed, I depressed the lower lid as far as possible, and with a curved pair of scissors cut away an elliptical piece of conjunctiva from the most prominent part of the swelling. A small quantity of thin, yellowish fluid, issued, together with a cysticercus—the two having composed the bulk of the little tumour. The edges of the wound were, at the end of two or three days, fully united.

The entozoon was perfect, about the size of a large garden pea, and presented at one part of its circumference a circular, opaque body, projecting into the interior of the vesicle (fig. 2); the former Mr. Wharton Jones kindly showed me, under the microscope, to consist of the retracted head and neck of the hydatid.

NATURAL SIZE. FIG. 1. FIG. 2.

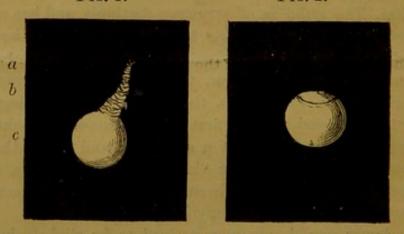


FIG. 1.—*a*, the head; *b*, the neck or body; *c*, the tail-vesicle. FIG. 2.—The head and body retracted within the tail-vesicle.

An excellent account of the peculiarities of this hydatid, accompanied by magnified and other figures of it, is given by Dr. Knox,* Professor Owen,† and Mr. Gulliver.‡ Cases very similar to the one described have been recorded by Mr. Estlin,§ (who has met with two examples,) by M. Sichel, || and

* THE LANCET, January 16, 1838.
† Cyclopædia of Anatomy and Physiology, article "Entozoa."
‡ Medico-Chirurgical Transactions, vol. xxiv.
§ London Medical Gazette, August 25, 1838, and 1840.
¶ Quoted in THE LANCET, Feb. 14, 1846, from the Gazette des Hópitaux.

by Baum, Hoering, and Cunier.* They are to be regarded, however, as of unfrequent occurrence.

Besides being occasionally found beneath the sclerotic conjunctiva, this entozoon has been met with in the eyelid; in the aqueous chambers of the eye; in the areolar tissue between muscular fasciculi unconnected with the eye; in the brain, and in large numbers beneath the pia mater. Hasse, in his "Pathological Anatomy," remarks-" In man the vascular system is almost entirely exempt from entozoa; the cysticercus cellulosæ is the only one which has ever been found in the heart." Mr. Lawrence states that it is found all over the body of the domestic pig, under certain circumstances, when the animal is said to be "measled." It occurs also in the eye of this creature, where it has been seen in the anterior and posterior chamber. I am informed by Mr. Greenhalgh, that a cysticercus was removed from a tumour in the tongue of a patient of his by Mr. Fergusson. Some years ago, Mr. Guthrie, at the Westminster Hospital, found this entozoon in an abscess near the inner edge of the biceps of the arm; and I understand that the museum of the Veterinary College contains a specimen of this hydatid lodged in a horse's eye.

Four cases⁺ only have been hitherto recorded, where a cysticercus was discovered in the anterior chamber of the human eye. The fourth is that one thus mentioned by Mr. Wharton Jones:[‡] —" This case occurred about two years ago, and the hydatid, after extraction, was brought to me by Mr. Canton for examination. The patient was a boy, about ten years of age. I found his cornea semi-opaque and vascular, and increased both in diameter and prominence. The hydatid in this case was more than double the size of that in the preceding, (Mr. Logan's,) and its appearance suggested the idea that it was the lens and vitreous body—the former opaque and contracted, the latter shrivelled by the draining away of the contained humour; but a slight examination of the body

* Annales d'Oculistique.

† Neumann (in Rust's Mag., vol. xxxiii.); Dr. W. Soemmering (Isis von Oken, 1830); Mr. Logan, (Med. Gazette, vol. xii.)

[‡] Manual of the Principles and Practice of Ophthalmic Medicine and Surgery, 1847. was sufficient to point to its true nature, which microscopical dissection demonstrated."

As no other account of this curious case has hitherto appeared, I believe the communication of additional particulars will be found to be both interesting and instructive.

CASE 2.—This patient I had the opportunity of watching for several months previous to the removal of the hydatid. During that time the most prominent symptoms were-a gradual diminution of vision, consequent upon an increasing nebulous state of the cornea, which, indeed, on his first application at the hospital, was so hazy, as completely to obscure the iris from view. There was slight but continued injection of the sclerotic vessels, together with undue fulness of several conjunctival branches. By degrees, the central part of the cornea projected and became more opaque than the portion surrounding it. The boy, whose health was delicate, appeared to lose flesh during the progress of the complaint, whilst the almost constant darting pain he complained of in and around the eye was, like the condition of the latter, unrelieved by the various plans of treatment resorted to. It being, at length, deemed advisable to make an opening through the most prominent part of the cornea, a cataract knife was used for the purpose, and the incision set free a small quantity of aqueous humour, together with a cysticercus in a perfect state. The wound healed without a bad symptom, and the operation relieved the lad from his suffering. The hydatid was much smaller than the one sketched above, but appeared as in fig. 2, with its head and neck retracted within the tail-vesicle.

Six or seven months from this period, the boy again presented himself at the hospital, and continued to attend it for some time. The circumstances of his case appearing, after a while, to require a procedure similar to the one just described, the cornea was again, to a small extent, cut through, when a substance resembling, and supposed to be, a cysticercus, escaped. These particulars I learned from Mr. Brock, who was then house-surgeon to the institution—not having myself watched the patient, witnessed the operation, or examined the presumed hydatid; all of which opportunities I had enjoyed on the former occasion.

An example of a second entozoon of this species being lodged in the eye, is to be looked upon as unique; the present case, however, as its sequel tends to show, must not, I believe, be regarded as presenting such an example. I should mention, that the substance extruded at the second operation was not viewed under a magnifying power, but was considered to be a cysticercus by Mr. Brock, who had seen, though not closely, or microscopically examined, the former specimen.

Since this period (about three years ago) the boy has occasionally been to the hospital, but has latterly attended it as a patient. The appearances presented were as follow :-- the consistence of the eye less than natural, though the organ appeared to be fuller than the sound one; slight injection of the sclerotic vessels; delicate convergent twigs from conjunctival branches passing here and there over the cornea; the latter rather larger in circumference than natural, generally opaque, unduly prominent a little above its transverse axis, and in which situation was the greatest degree of opacity. The difference only between light and darkness could be distinguished. Darting, throbbing pain was complained of in the eye and around the orbit, but more especially at the temple. Various plans of treatment were had recourse to, with the view of improving the state of the cornea and mitigating the pain, without, however, any resulting benefit. It now became a question, whether another hydatid might not be confined in the anterior chamber, producing, by its presence, the insuperable annoyance under which the lad laboured? -one of these "beings" had already been liberated, with relief to the symptoms; a second also, it was believed, was set free, and certainly under similar circumstances and with the like benefit. With these considerations, Mr. Guthrie made a limited vertical incision through the cornea, so as to include the opaque spot above mentioned; vitreous humour at once and alone escaped. The lid, for a minute, was lowered, and upon again gently raising it, a small quantity more of the humour flowed out. It was observed by Mr. Guthrie, that the

crystalline lens was wanting. This body, most probably, had been expelled at the second operation, and mistaken for another hydatid. That the interior of the globe was wholly filled by vitreous humour was certain; for, in addition to the lens being absent, the little gush of aqueous fluid which ordinarily follows so closely upon incision through the cornea, was noticed not to take place.

The portion of cornea most opaque was seen, on its section, to consist of an unusual thickening of the part. A pad was placed over the eye, and the lad directed to keep his bed.

The operation has removed the pain complained of previous to its performance, and the case has required no further treatment than the subdual of a slight inflammation.

St. Martin's-lane, 1848.

