C A S E
OF
HYDATIDS OF THE TIBIA.

BY
WILLIAM COULSON,
SENIOR SURGEON TO, AND LECTURER ON SURGERY AT, ST. MARY'S HOSPITAL.

Received Feb. 27th.—Read May 25th, 1858.

I AM induced to lay the following case before the Fellows of the Royal Medical and Chirurgical Society, on account of the rarity of the affection to which it refers.

Sarah G—, æt. 25, married, was admitted into St. Mary's Hospital under my care, on the 20th October, 1857. Eight years ago the patient received on the front of the right tibia, a little below the insertion of the ligamentum patellæ, a kick, which was soon followed by a swelling, that increased in a gradual and steady manner, until it attained the size of a hen's egg. The development of the swelling was attended by no great inconvenience until four years afterwards, when the pain becoming very severe, the patient was admitted into a metropolitan hospital. The treatment there employed mainly consisted in the use of blisters. After this the pain was less than it had previously been, but the swelling remained much in the same condition until ten weeks before she came under my notice. At this time the swelling gave way spontaneously,

and matter containing acephalocysts was discharged. The patient was then advised by Dr. Daubeney, under whose care she was, to come into St. Mary's hospital.

On her admission, there was a swelling, of the size of an orange, in the front of the right leg, just below the tuberosity of the tibia; in the centre of the swelling there was a small ulcer, and the surrounding integuments were red and swollen. The discharge, which was not considerable, was found to contain some acephalocysts, and thus the nature of the affection was revealed.

No doubt being entertained of the existence of a cavity in the tibia, containing hydatids, I determined to lay it open and remove its contents. On the 4th of November, by means of a crucial incision, I reflected the integuments, and with the saw and bone-nippers removed a large thin piece of bone, forming the anterior wall of the swelling; in this was impacted a large hydatid, which had partially made its escape. The cavity—which extended within half an inch of the joint, and three inches down the shaft—was now exposed, and hydatids in considerable numbers were removed. The whole of the cavity was lined by a white, glistening membrane. After removing all the hydatids which I could find, I rubbed the lining membrane of the cavity with solid nitrate of silver, and filled the cavity with cotton wool.

The cysts were found to consist of a friable, translucent membrane, {which could be readily separated into distinct layers. Under the microscope, this membrane presented the laminated appearance which is usually found in hydatid cysts, without any trace of structure. The cysts contained a clear watery fluid, in which granular matter, with a considerable quantity of oil-globules, was detected. No trace of ecchinococci could be found.

On the 7th, the cotton wool was removed, and the cavity washed out with a solution of chloride of soda, when several hydatids came away. From this time the wound was dressed daily in the same manner. On the 11th, two other hydatids came away.

On the 18th, healthy granulations were seen springing

up from a great portion of the cavity, but at the upper part the floor of the cavity presented a dark appearance, and here a piece of necrosed bone was detected. On the 30th, this sequestrum, which had become loose, was removed with the forceps. This portion of bone was about two inches long, and one inch and a half broad; it was thickly covered on both sides by small hydatids, not much larger than a good-sized pin's head; so numerous were they, that the bone looked as if it were covered by a layer of coagulable lymph. On a close inspection, however, the hydatids could be readily detected; some collected in grape-like clusters, others single and attached by fine particles to the bone.

The removal of this sequestrum was attended by immediate benefit; granulations began to spring up from the part from which it had been removed, the cavity rapidly filled up, and on the 5th of February the patient was discharged with the wound nearly healed.

Remarks.—Hydatids are very seldom met with in the osseous system. The 'Transactions of the Society' contain one case only, which was communicated by the late Mr. Keate. In that case the hydatids occupied the cranium; but it is worthy of remark, that in the majority of cases published the tibia has been the bone affected.

The osseous system is so seldom the seat of hydatids, that no general description can be drawn from the limited number of cases on record. Hydatids of bone are developed in a slow manner. In the case related by Mr. Keate,¹ and in one by Mr. Wickham,² the disease was of six years' standing, and in my own case of eight years, before an operation was had recourse to.

The tumour is evidently connected with bone; its development does not excite much pain, and for a considerable time the diagnosis is attended with great difficulty; in fact,

¹ 'Medico-Chirurg. Transactions,' vol. x, p. 278,

² 'London Med. and Phys. Journal,' vol. lvii, p. 530.

the case does not become clear until the thin wall of the bone gives way, and the foreign bodies are discharged.

The treatment consists in removing as many of the hydatids as can be done without danger, and then destroying with chemical agents any which remain in the cavity, as likewise the lining membrane of the cavity itself. If any cysts, or any portion of the main cyst, be allowed to remain, new hydatids may be developed with great rapidity. This was a source of much annoyance, and even danger, in the case published by Mr. Keate. In the case just related, I rubbed the whole of the cyst freely with nitrate of silver, and I think this a practice which should always be followed.