C A S E
OF
HYDATID OF THE LIVER,
SUCCESSFULLY TAPPED.

BY WILLIAM TRAVERS COX, M.D.,
OF YARMOUTH.

READ MARCH 13TH, 1838.

GEORGE GOOSE, aged 32, a muscular man, of sallow complexion, employed as a coal-heaver, complained in January, 1832, of pain and tenderness in the epigastrium, with occasional sickness, and was relieved by counter-irritants, demulcents, and aperients. Two or three months afterwards, he was a patient in the Norfolk Hospital, where ascites supervened upon an aggravation of his former symptoms. Sent out of the hospital, he was put under a course of mercury by a physician, and, while salivated, he said the abdomen decreased in size, but increased again. He then consulted me. He was jaundiced; his pulse 75, of good strength; bowels irregular; tongue furred, moist; no pain except tenderness in the umbilical region, and upon deep pressure, in the loins. Calomel and squills, tartar emetic ointment, and va-

rious diuretics were tried without effect ; the belly became distended to an enormous size, and the patient consented to be tapped. On October 26th, this operation was performed by Mr. Taylor, sen., and twenty-one pints of fluid were drawn off, appearing of the colour and consistence of ordinary bile. One ounce of this, evaporated, left half an ounce of coagulated fibrine and colouring matter, which latter was, for the most part, soluble in rectified spirit. On examining after the operation, which was borne well, the liver was found considerably enlarged. I now resolved upon the use of iodine internally, and externally by friction on the region of the liver. The patient took iodine with nitrate of potass and a diuretic drink ; at the same time, he took occasionally small doses of elaterium, and had the strength supported by a moderately nutritious but unstimulating diet. Under this treatment, there was an increase in the quantity of urine, which, from being high-coloured and depositing a copious sediment, became pale, clear, and not turbid, as formerly, on the application of heat. From the time when the operation was performed, there was no fresh accumulation of fluid in the abdomen ; the liver at the end of some weeks was very sensibly decreased in size, the stools were tinged with bile, the kidneys acted regularly, there was no pain or tenderness, and the man's health, strength, and appetite becoming nearly as good as formerly, he returned to his employment as a coal-heaver.

In April, 1836, this man came under my care

again, as a dispensary patient, when I saw him along with Mr. Alared, the surgeon. He had been well, and almost constantly at work, for the last three years, until two months ago, when he had severe pain of the right side, with cough, dark expectoration, and fever. The cough and severe pain had continued, and when he presented himself at the dispensary, he was expectorating large dark coagula, occasionally offensive puriform matter, and large quantities of dark fluid blood. His pulse was soft, full, and rather more frequent than natural; his tongue red and moist; his face slightly jaundiced; he had irregular perspirations and rigors, and had lost appetite and flesh. The sound, on percussion over the upper parts of each lung, was sufficiently clear; on the lower lobe of the right lung dull. Respiratory murmur over the right lung loud, almost puerile; on the right mixed with a mucous and sibilous râle superiorly; inferiorly and posteriorly, over a circumscribed space, was a loud loose râle or "garguillement", which could be traced up to the root of the lung. In the same situation, could occasionally be heard a loud circumscribed bronchial or cavernous resonance of the breathing and voice. It may not be necessary, and therefore it would be tedious, to enter into particular detail of this part of the case. It will be sufficient to say, that having formed a diagnosis, namely, that there was broken up structure towards the posterior part of the base of the right lung, the result of inflammation, which was probably in connection with the dis-

ease on the upper surface of the liver, and continued into a large bronchial tube, I treated the man with dilute sulph. acid and mild tonics; tart. emetic ointment, and sometimes pills of oxide of zinc, digitalis, and extract of taraxacum with a little pil. hydrarg. occasionally. The hemoptysis and other expectoration was arrested, and the man's general health improved; and thus he continued for two or three months, when the hemoptysis again returned, was again checked, but, returning once more, the patient brought up two hand-basins full of blood, and sank on Saturday, the 4th of this month of November, 1837.

I need not dwell upon some obviously interesting features in this case, as the character of the fluid removed from the abdomen, the circumstance of recovery after the one operation of paracentesis, and the cure by the direct influence, as it seemed, of iodine upon the liver. I will rather pass to that part of the post mortem examination which gave the motive for publishing this paper. But first, upon opening the chest, the lungs were found to collapse but little, and upon cutting into them, they were loaded with frothy sanguinolent fluid throughout, except toward the base of the right lung, which was firm and uncrepitating. The upper lobes of both lungs, but especially the left, contained tubercles in different degrees of maturity, but none larger than a pea. Upon trying to remove the right lung, all its base was found adherent to the diaphragm. This was partly separated by dissection, but towards the

posterior edge the adhesion was found to be quite ligamentous. On dividing this part of the lung, a small cavity was seen lined with firm, almost cartilaginous membrane, and containing clots of dark grumous blood, puriform matter, and pieces of coagulated fibrine. This cavity, of almost the diameter of two fingers, was continuous with a dilated bronchial tube, whose lining membrane was thickened, and here and there ulcerated. One or two vessels opened into the cavity. The surrounding lung was condensed, and of a greyish yellow colour, but not presenting tubercles, or any other loss of substance than this described. The first object seen or regarded upon opening the abdomen was a large distended cyst with a smooth surface, occupying, as at first appeared, the position of the gall-bladder, and supposed to be that viscus distended considerably. But when the liver was completely exposed, and the cyst brought well into view, it was found attached by a small portion of its surface to the right of the gall-bladder, and in the front of the transverse fissure. The gall-bladder itself presented nothing unnatural in appearance; the liver was somewhat enlarged, and throughout in a state of uniform venous congestion. Circumstances prevented any further examination of the body. The cyst, however, we got leave to remove. It was attached by almost a fifth part of its surface to the substance of the liver. It had no other connection than through these filiform products of the fibrous coat of the liver. This spread out into a fibrous investment, which covered the whole surface

of the cyst, and which is partly dissected off. When removed, it was of an oval shape, about four times the size of the gall-bladder, contracted in its centre, where was a small piece of cartilaginous structure. It was fully distended, elastic, and semitransparent towards its surface, upon being held before the light. It was necessary to make a large opening before the contents of the cyst could be removed. Upon doing this, a firm transparent yellow gelatinous mass was squeezed out, which presented exactly the shape and smooth surface of the cyst. On examining this, it was found to consist of concentric layers, which could easily be unrolled one from the other. They were about two lines in thickness; the outermost, those nearest the cyst, were most transparent and had least colour. Toward the centre they became more opaque, yellow, less firm, and distinguishable; and within all was a quantity of concrete bile. The outer layers were so firm, that they could not easily be torn. They were rendered more firm and opaque by the application of heat, became softer and more transparent in sulphuric and nitric acids, and again firm and opaque upon the addition of water. Between these fibrous layers, lay here and there small pieces of a substance resembling that which is used in the dissecting room for injecting the arteries, of a waxy feel and consistence, and of a bright vermilion colour*.

* A preparation was afterwards exhibited to the Society by Mr. Thurnam, of a supposed acephalo-cyst from the liver of a patient who died in the Westminster Hospital, which contained a substance very closely resembling that here described, in co-

The inner surface of the cyst is smooth and serous, but abraded in places by the deposit of a concrete bilious matter, which has not been removed by maceration in water and spirits.

As I have avoided, in drawing up this case, unnecessary details, I shall, for the same reason, abstain from conjectures and comments upon the circumstances, whose interest is, I hope, sufficient to excite the attention of those whose pathological investigations have been more extensive than my own.

NOTE, by Dr. Bostock, F.R.S., &c.

I RECEIVED from Mr. Perry a small quantity of the red substance mentioned above, with a request that I would examine its properties. It was of a very bright red colour, and, on the first view, much resembled the injection which is used by anatomists; but, on a closer inspection, it presented somewhat of a granular or fibrous texture, and seemed to consist of two substances, very minute red particles, imbedded in a mass of a different kind of matter. It was not fusible, and, when heated on bibulous paper, did not produce a greasy stain. A small portion of it, being exposed to a low red heat, swelled out very considerably, and at length burst into a bright flame, leaving a bulky carbonaceous residuum. Supposing that it

lour and consistence. Of this substance no chemical examination had been made.—EDITOR.

might be some modification of the hepatic secretions, I subjected small portions of it to the various re-agents which produce the most marked effect on the resin of the bile, or the specific matter of biliary calculi, but without any very satisfactory or decisive results. It was scarcely affected by boiling water, alcohol, sulphuric ether, or the essential oil of turpentine, and it was but little acted on by liquid chlorine and by muriatic acid. By being digested in boiling water its texture was destroyed, and the water was tinged of a brown colour, but no further effect was produced. No effect was produced by digesting the substance for twenty-four hours in alcohol, except that it was rendered somewhat firmer in its consistence. No effect was produced on the substance in question by sulphuric ether, the essential oil of turpentine, or liquid chlorine. Diluted muriatic acid, after being digested on the substance, acquired a yellow tinge, while the red colour of the substance was rendered somewhat less bright, but no further effect seemed to be produced. The action of nitric acid was more powerful, the acid acquired a blood-red colour, while the substance was broken down and converted into a soft, whitish, saponaceous mass. The addition of potash threw down a small quantity of a white flocculent precipitate, showing that a slight degree of solution had taken place. The re-agent which produced the most powerful effect was potash. A large proportion of the substance was apparently dissolved, but the red colouring matter subsided in the form of very minute particles; the fluid was rendered opaque

and brown. Being passed through a filter it became clear, and gradually assumed a dingy green colour, while a thin film of yellow matter, which resembled dried bile, was left on the paper.

I regret that I am able to offer so little that is satisfactory respecting the nature of this red substance, but it may afford at least some apology for my want of success, when I state, that the whole amount of the substance on which I had to operate, was not more than between five and six grains.

Upper Bedford Place,
May 26, 1838.