

HEPATIC HYDATID CYST CAUSING SUPRARENAL HAEMORRHAGE

BY

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Hydatid disease in the British Isles is comparatively rare, and almost all the cases that have occurred originated in a small endemic area in South Wales. The following case presented a very unusual clinical picture. I have been unable to trace any similar case in the literature, although Barnett (1941) records haemorrhage as a cause of death in six cases of abdominal hydatid cyst, and Dew (1928) describes a case of haemorrhage due to anaphylaxis.

Case Report

The patient, a fitter and tester aged 29, was born in Abertillery, Monmouthshire. He was described as being delicate from birth, and at the age of 14 was suspected of having tuberculosis and went to live on a farm at Gilwern, Monmouthshire, where he stayed for three years. He left South Wales at the age of 21 and had since lived in Ipswich. He had never been abroad.

In July, 1944, he had an attack of jaundice, with vomiting and abdominal pain, lasting six weeks. A similar attack occurred in December, 1944, and lasted eight weeks. Following these attacks his general health was impaired, he appeared languid, fainted frequently, and had considerable flatulence. On May 27, 1946, he developed upper abdominal pain, diarrhoea, and flatulence, followed next day by jaundice and vomiting, with pale-yellow stools and dark urine. He was seen by Mr. Langley as an out-patient on May 30, when he was noted to be a well-built man, with moderate jaundice, clean tongue, and good teeth. The liver was enlarged to 4 in. (10 cm.) below the costal margin, with slight tenderness in the gall-bladder region, but the gall-bladder was not palpable. Rectal examination revealed no abnormality. At 8 p.m. on June 1 he was admitted to the Ipswich Borough General Hospital, having become dyspnoeic the previous evening and having passed no urine for twelve hours. On examination he was found to be deeply jaundiced and moderately dyspnoeic, but not distressed or cyanosed. The temperature was 103° F. (39.4° C.), pulse 132, respirations 36. His pulse was of poor volume and his blood pressure was 80/50. No abnormality was found in the heart or chest on clinical examination. His liver was enlarged, as above, and very tender, with tenderness spreading down to the umbilicus. The spleen was not palpable.

Investigations.—The following results were found on May 30. Urine: S.G. 1030, bile ++++. Blood count: Hb, 118%; R.B.C., 5,240,000 per c.mm.; reticulocytes, 0.5%; W.B.C., 10,300 per c.mm. (neutrophil polymorphs 52%, lymphocytes 40%, monocytes 8%). Van den Bergh: strongly positive direct reaction. Serum bilirubin, 17.1 mg. per 100 ml. Fragility test normal. W.R. negative. Radiographs of the chest on admission showed congestion of both lung bases and raised diaphragm.

A provisional diagnosis of acute hepato-renal failure was made, and treatment with intravenous glucose saline, dehydrocholine, and insulin was started. He was also given "eucortone" in view of the

low blood pressure. Despite all this, however, he died in the early hours of the next morning.

Post-mortem Examination.—The cause of the hepatomegaly was found to be a hydatid cyst, 5½ in. (14 cm.) in diameter, with multiple daughter cysts (see photograph). All the blood was noted to be fluid, and there were petechial haemorrhages on the visceral pericardium, peritoneum, and pleura. There was also haemorrhage into both suprarenals, more severe on the left. The lungs showed bronchopneumonia. The spleen was slightly enlarged. No abnormality was found in the brain, heart, or kidneys.

Discussion

The probable sequence of events leading to death seems to have been a rupture of the cyst into a large bile duct, causing blockage of the biliary system, jaundice, and lowered prothrombin level. This in turn led to multiple haemorrhages, including destruction of both suprarenals, resulting in lowered blood pressure, extrarenal anuria, and death. The high temperature was due to a severe cholangitis in the left lobe of the liver, which can be seen in the photograph. Another possibility is that the whole picture is one of anaphylaxis due to rupture of the cyst into the biliary system, but in view of the absence of urticaria and the lack of eosinophilia this seems unlikely.

The period of infestation is still more debatable. It is tempting to think that the patient became infested while on the farm, where there were many dogs. In this case the cyst would be 12 to 15 years old. In a special investigation into the South Wales cases by the Welsh Board of Health (Howell, 1938), however, it was found that the majority of cases occurred in the industrial areas and towns. It is therefore more likely that he was infested at a still earlier age, while in Abertillery, and, indeed, this may have accounted for his debility, which led to the suspicion of tuberculosis. His two previous attacks of jaundice were probably also caused by partial rupture of the cyst into a bile-duct. This could account for both the cholangitis and the multiple daughter cysts, which, Dew believes, are always initiated by trauma to the primary cyst; partial rupture into a bile-duct is a common type of trauma.

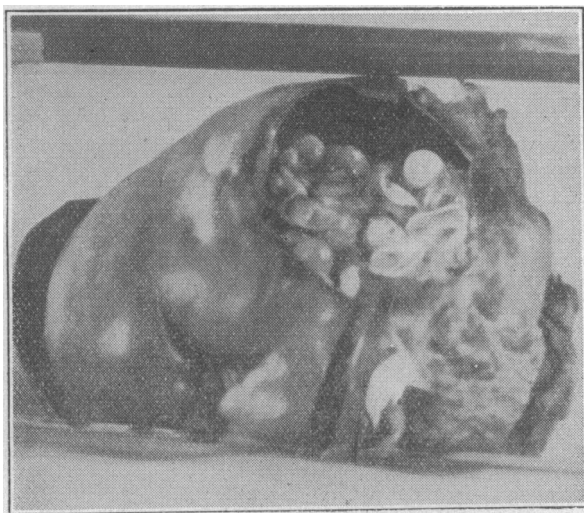
Summary

An unusual case of hydatid cyst of the liver is described. This caused three attacks of jaundice, in the last of which multiple haemorrhages developed, including haemorrhage into both suprarenals, leading to collapse, anuria, and death.

I wish to express my thanks to Mr. G. F. Langley for much advice and assistance in writing this note, to Dr. J. Fielding for the post-mortem examination, and to Dr. J. W. Hunter, medical officer of health, for permission to publish the case.

REFERENCES

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Photograph showing hydatid cyst with multiple daughter cysts, choangiectatic left lobe, and macroscopically normal right lobe.

WILLIAM KLYNE'S *Practical Chemistry for Medical Students* has been prepared with special regard to their requirements. With them the problem is to acquire a complete grasp of the principles and relationships of chemistry in the relatively short time at their disposal. The system by which they are successfully to be taught depends therefore on a judicious choice of subjects for practical experiment and on the presentation of these in a form which is most easily assimilable, free from ambiguity, and which clearly enunciates the principles that are to become the foundation for an understanding of future problems. The success of the author in accomplishing this purpose could only have been achieved by one who had had much experience in teaching the subject to students of that category and who was gifted with discernment to recognize the most effective plan. His experience as a teacher of practical chemistry to medical students has enabled him to develop, under a system of continuous re-examination and review, an excellent textbook for the purpose required. In its production the author has paid much constructive attention to the clarification of the exercises to be performed and has avoided the common danger of obscuring the theoretical purpose in the instructions for procedure. In this sense the text bears evidence of care to obviate all forms of ambiguity and to make every fact easy of recognition. The opening chapters, giving general ideas on qualitative and quantitative work, on manipulation, and on appreciation of the findings, form an excellent example of how the subject should be introduced. This book, published in Edinburgh by E. and S. Livingstone at 20s., may be commended to all who have to follow the medical student's course of study.