TRANSACTIONS

OF THE

PHILADELPHIA ACADEMY OF SURGERY

Stated Meeting Held April 7, 1924

The President, Dr. Edward S. Hodge, in the Chair

ECHINOCOCCUS CYST OF THE OMENTUM

Dr. K. Kornblum presented an Italian man, aged twenty-eight years, who was first seen by him October 28, 1923, complaining of a tumor in the right upper abdominal quadrant. He had been perfectly well until four months prior to admission, when he noticed some soreness in the right upper abdomen where he then felt for the first time a large mass that he could easily move about. He thinks the mass gradually increased in size from the time that he first noticed it. He had been in this country for the past twelve years. In Italy he was employed as a carpenter and in this country he has always worked in a factory. He had never been in intimate contact with dogs. He was muscular and well nourished, apparently in perfect health.

Examination was entirely negative with exception of the abdomen. Here a large tumor could readily be seen in the upper right quadrant, about the size of a cocoanut. This was not tender to palpation, presented a smooth surface and had a tense, cystic feel. It moved downward on respiration, appeared to be independent of the liver and no enlargement of this organ could be detected. The mass was freely movable in the upper abdomen and could be pushed slightly beyond the midline toward the left. In a downward direction it could be made to reach the level of the umbilicus. The mass appeared to have its centre of rotation about the gall-bladder. It could not be palpated with the hand in the right kidney region, neither could the right kidney be felt. A dull note was elicited on percussion over the tumor. No hydatid thrill was detected. No other masses were felt in the abdomen and the other abdominal viscera appeared normal. Peristalsis was normal and there was no abdominal distention. He was admitted to the service of Dr. George P. Muller, operation was performed on November 3, 1923, under gas-ether anæsthesia. A transverse incision in the upper right quadrant of the abdomen was made. The mass immediately presented itself on opening the peritoneal cavity and was seen to be a large cyst enmeshed in the great omentum and not attached to any of the neighboring viscera. The omentum was bound by adhesions to neighboring structures and could not therefore be removed from the abdomen. Consequently the cyst was walled off from the remainder of the peritoneal cavity by gauze packs and its removal proceeded with. In attempts to free it, the cyst wall was ruptured and immediately numerous daughter cysts escaped, thus revealing the true nature of the cyst. The entire growth was removed and after removal of the packs the abdomen was irrigated with a weak iodine solution. Further exploration of the abdomen revealed no other cysts. The abdomen was closed and the patient made an uneventful recovery. Pathological examination of the cyst showed it to have the usual characteristics found in echinococcus cysts. The patient has returned twice for follow-up examinations and states that he remains perfectly well. Physical examinations on both occasions were negative.

Echinococcus cyst of the omentum is but one of the varieties of this parasitic infestation of the peritoneum. Much of the literature concerning hydatid disease comes from Australia from which fact an inference may be drawn that the disease is probably encountered there as often as anywhere in the world. And yet the occurrence of peritoneal echinococcus cyst is a condition of comparative rarity in that country, as pointed out by Fairley who, states that, "Echinococcal infestation of the peritoneum is a relatively uncommon disease." In a series of 300 cases of hydatid disease encountered in 13 years only 25 were found to be of peritoneal origin. This author gives a rather lengthy dissertation on the occurrence of echinococcus cysts of the peritoneum showing that the disease occurs in two forms, either as a single cyst, such as the case reported this evening or as multiple cysts. Of the two varieties the occurrence of multiple cysts is about twice as common as the single variety. The single cysts are thought to be the result of an active migration of the embryo from the gastro-intestinal tract, while in the case of multiple cysts the most likely origin is from the rupture of a liver cyst either spontaneously or at time of operation. In Fairley's series of cases 88.2 per cent. gave a history of a previous initial operation for abdominal hydatid disease or of some previous acute abdominal crisis often traumatic in origin. The diagnosis becomes relatively simple in the case of multiple cysts because of this history of previous disease, but more difficulty is encountered with the single variety. In this respect it is interesting to note that in Fairley's eight cases of single cysts none were correctly diagnosed prior to operation. He calls attention to the fact that single cysts occur most frequently in the pelvis and in this situation in the male the most common error in diagnosis is to mistake the cyst for an enlarged prostate while in the female the cases are frequently diagnosed as ovarian cysts or myoma uteri.

As to the symptomatology, there is usually nothing more than the presence of single or multiple masses in the abdomen associated with various pressure symptoms depending upon the situation of the cysts. Certain complications are occasionally met with, the most common being a calcification of the cyst wall which results in an increased hardness of the mass and thus leads to the diagnosis of a solid tumor. Suppuration may occur in the cyst with its resulting toxemia which thus increases the difficulty of diagnosis. And finally a cyst may rupture. This quite commonly follows an injury to the abdomen. In addition to the symptoms of an acute abdominal catastrophe there are those resulting from the anaphylactic response on the part of the body to the fluid of the cyst. This is manifested by severe collapse, dyspnœa, cyanosis, vomiting and diarrhœa, rapid and barely perceptible pulse and later the occurrence of a symptom which is practically pathognomonic for the rupture of an echinococcus cyst is the development of urticaria. Thus the history of an acute abdominal catastrophe in a native from southern Europe associated with collapse and urticaria practically makes the diagnosis of the rupture of an echinococcus cyst.

REFERENCES

[1] L. Davis and G. M. Balnoni: A Study of 29 Cases of Echinococcus Cyst at the Massachusetts General Hospital. Boston Medical and Surgical Journal, vol. clxxvi, p. 726, May 24, 1917.

[2] K. D. Fairley: Peritoneal Echinococcosis. An Analysis of 25 Cases. Medical Journal of Australia, vol. ii, pp. 209–215, August 19, 1922.

ANKLE FRACTURES

DR. E. L. ELIASON reported the following cases:

I. *Fracture of the Tibia and Astragalus with Dislocation of the Latter.*—The patient, a young man, had his foot caught between an ascending construction elevator and the side of an open shaft, with a resulting twist that threw him over the side to the ground, 30 feet below. Fluoroscopic examination revealed a fracture of the lower end of the tibia passing obliquely across the shaft and entering the joint, a fracture of the neck of the astragalus and an internal postero-lateral dislocation of the head of the astragalus with a 90 degree rotation of the same. Open reduction was required at which the tibialis anticus tendon was found between the fragments of the tibia. The head of the astragalus was entirely separated from its attachment. Reduction and plating of the tibia. The patient is now fourteen weeks later, walking with a cane.

II. *Bilateral Fracture of the Astragalus, Tibia and Fibula.*—A young woman, while riding in the side car of a motor cycle was subjected to a head on collision. The neck of the left astragalus was broken, dislocated laterally, accompanied by a fracture of the external malleolus. The neck of the right astragalus was broken, the head was dislocated laterally and both malleoli were broken. The patient was walking without a cane six months later, her only complaint being weak arches for which she wears supports.

Stated Meeting Held May 5, 1924

The President DR. EDWARD B. HODGE in the Chair

PLASTIC SURGERY OF THE FACE

DR. ROBERT H. IVY presented a man, seventy-one years of age, who for the preceding five years had been the subject of a slowly advancing ulcerative lesion of the skin of his nose. The skin of the entire nose was involved, presenting red thickened areas, large scales and crusts, which when removed exposed ulcerations. The ulcerative process had destroyed most of the left ala through its entire thickness, the skin of the columella, part of the cartilaginous septum, and the skin of the right ala. (Figs. 1 and 2.) Very little pain was experienced. Wassermann reaction was negative. General physical examination revealed no other serious defects.

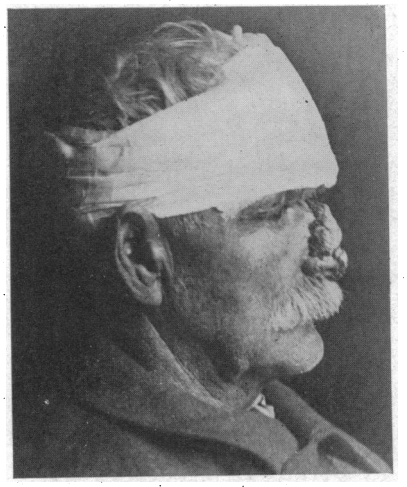

FIG. 1.—Side view of nose lesion.

A plaster-of-Paris impression of the face was taken and a cast made of the same material. From this measurements were accurately made of the nose, which had been reconstructed in wax on the model, from which a tin-foil pattern was reproduced giving the exact shape and size of a forehead flap to be used in reconstruction of the nose. At the first operation, December 21, 1923, under ether, the flap of skin and subcutaneous tissue the size and shape of the tin-foil pattern was raised from the forehead and sutured back in place for