PRIMARY MALIGNANT ADENOMA OF THE LIVER SIMULATING TROPICAL ABSCESS.

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In cases where there is reason to suspect the presence of a tropical liver abscess, diagnosis often presents a most troublesome problem. To quote a French writer, "It is a hundred times more difficult to diagnose a tropical abscess of the liver than to open it."

In doubtful cases it is advisable to bear in mind that patients from the tropics, presenting signs of affection of the liver, may be suffering from diseases not necessarily limited to the tropics. The importance of recognising these points is shown in the case here recorded.

The case was seen on the 22nd January 1914 at the request of Mr. Cathcart, who thought the patient was probably suffering from an amœbic abscess of the liver.

Previous History.—The patient, 34 years of age, had been working as a medical missionary in Rhodesia for some years. Excepting occasional attacks of malaria, he had enjoyed good health; no history of dysentery.

He came home on leave in the autumn of 1913, and shortly afterwards commenced to suffer from slight pain on pressure in the region of the liver. About the end of December, following exposure to chill, the pain became more severe and was accompanied by rise of temperature in the evenings (99°-99·4° F.). The patient was confined to bed for a few days.

Examination.—The patient, a strong, well-developed man, did not complain of any marked symptoms. He had, in fact, arranged to return to Rhodesia early in February. Tongue clean, no jaundice, heart, lungs, and spleen normal.

Percussion showed the liver dulness extending two inches below the costal margin and measuring 8 inches in the mammary line. On deep palpation the under surface of the right lobe was felt to be slightly nodular.

Blood normal, excepting slight increase in large mononuclears. Leucocytes, 6000.

Examination of the stools for amœbæ and ova was negative. A skiagraph of the liver area simply showed the marked enlargement of the liver, no diminution of movement of the diaphragm on the right side.

The patient was kept under observation for a fortnight. The

temperature during this period was never above normal. There was a daily marked increase in the liver dulness with persistent pain. The case was now diagnosed as one of malignant disease, probably sarcoma, on the following grounds:—Cirrhosis, alcoholic or specific, could be excluded by the history; malarial cirrhosis, kala-azar, or Banti's disease, by the absence of corresponding enlargement of the spleen; hydatid, or other parasitic affection, by the absence of eosinophilia, and non-detection of ova in the stools. As all other causes of enlargement of the liver could be excluded, the diagnosis now lay between liver abscess and malignant disease.

In tropical abscess it is very common to find that for periods of a fortnight or more the temperature remains normal, therefore the absence of fever in this case had no great significance. On the other hand, though in sluggish, deep-seated abscess there may be a normal blood-count, leucocytosis (16,000-18,000) is almost invariably present in acute abscess formation. Taking these facts into consideration and also the rapid increase in the size of the liver, with the irregularity of the surface felt on palpation, we felt justified in making the above diagnosis. This was, of course, not communicated to the patient, and as he was anxious for something to be done, the liver was thoroughly explored with an aspirator on 7th February; only blood was obtained, and this under the microscope revealed nothing abnormal.

A few days afterwards the patient proceeded to London on a short visit. On his return (22nd February) the condition was found to be distinctly worse. There was marked prominence over both right and left lobes of the liver. The dulness on the right side measured eleven inches in the mammary line, the spleen was found to be slightly enlarged.

He complained of persistent pain, loss of appetite, and general weakness, and after a few days was confined to bed.

28th February.—There has been a regular rise of temperature in the evenings (99°-100° F.), with pronounced increase in the area of liver dulness. As the patient still clung to the opinion that he was suffering from abscess of the liver, and was anxious for further exploration, laparotomy through the right rectus was performed. The surface of the liver was found to be irregularly nodular, with numerous striæ of fibrous tissue on the surface. A small portion of the liver was excised. Sections (stained with hæmatoxylin and eosin) showed the characteristic features of a rapidly growing primary malignant adenoma (Figs. 1 and 2).

The growth spread generally in finger-like processes. In some

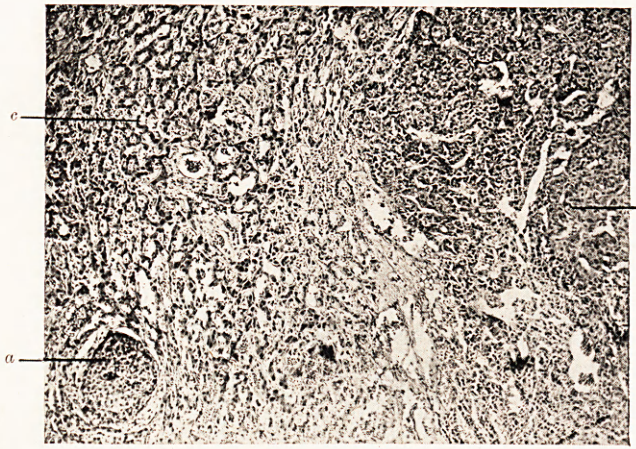

FIG. 1.—A. Small nodule of new growth.
B. Large area showing the general arrangement of the cancer cells, irregular columns, between which are seen the open blood channels with practically no supporting connective tissue.
C. Zone of liver tissue showing columns of atrophied liver cells, between which are distended and engorged capillaries. (× 40 diam.)

FIG. 2.—Showing Character and Arrangement of the Cancerous Cells; these are closely packed and arranged in irregular columns; between are seen the thin-walled capillaries. At (*a*) is seen the sharp blending between the cancer cells; and (*b*) the more healthy liver cells. (× 150 diam.)

areas it formed irregular masses. The liver cells unaffected by the growth were undergoing fatty degeneration. The portal tracts did not show any marked change, and there was no evidence of cirrhosis.

After the operation the patient rapidly lost ground, there was irregular fever, disturbed nights, the liver rapidly increased in size, especially the left lobe, and there was some difficulty in breathing, evidently due to pressure on the lungs.

He was allowed to go to his friends in the north on the 10th March. He died on the 15th April, less than three months from the date he was first examined.

Dr. Pyle of Portmahomack, Ross-shire, who attended the case during the concluding stages, has kindly furnished me with the following particulars:—"There was not much change in the condition of the patient until the beginning of April, when he commenced to lose ground rapidly. The area of liver dulness increased steadily. On the right side it extended to two inches below the umbilicus, over the left lobe it reached the nipple line laterally and extended upwards to the clavicle. For a time there was no difficulty in breathing, but towards the end there were some rather severe attacks of dyspnœa, and a troublesome cough, with expectoration of foul-smelling, blood-stained material. There was little jaundice, the stools were always normal in appearance. There was some œdema of the feet and ankles, and, shortly before death, a curious localised œdema of the right side was noted. It involved the lower part of the abdominal wall, the buttock, and the thigh as far as the knee; it was very pronounced and pitted to the depth of an inch on pressure.

"In the scar of the first operation a few secondary nodules appeared; the floor of the second operation wound, which never healed, presented a gangrenous sloughing appearance."

Primary cancer of the liver is a somewhat rare condition. Those interested in the subject are referred to an article by Lindsay S. Milne,[1] in which several cases are fully described and well illustrated. Milne states that up to 1901 accounts of only 163 cases had been published, and since that time about 50 more.

Since this case did not show any signs of cirrhosis of the liver it is interesting to note some observers have stated that in 86 per cent. of the published cases the condition was associated with cirrhosis, while one German writer goes the length of asserting that cirrhosis is the primary condition, and that the malignant growth is always a secondary one.

Reference.—[1] *Journ. of Path. and Bact.*, April 1909.