TWO CASES OF CARCINOMA OF THE LIVER PRESENTING SEVERAL POINTS OF CLINICAL AND PATHOLOGICAL INTEREST.

BY

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AMONG the cases of malignant disease of the liver which have recently been admitted into the Cardiff Infirmary the two following are of particular interest from their bearing on the occurrence of primary cancer of that organ.

The first case is one of primary infiltrating carcinoma, in which the liver weighed over 17 lb., and the other is one of extensive nodular cancer, which was secondary to a small primary growth at the pylorus, and in which the clinical features pointed to alcoholic cirrhosis of the liver.

CASE I.

H. S., a negro, aged 35, was admitted into the Cardiff Infirmary on June 2nd, 1902, complaining of "swelling of the stomach."

History.—He said that he felt quite well, and was working as a dock labourer, until eight weeks before, when he first noticed that his "stomach was swollen." He suffered neither from pain nor any other discomfort except that a week before admission he had felt sick one day, but had not vomited. He had never had malaria or syphilis, and there was no history of alcoholic intemperance.

State on Admission.—He was a well-built, fairly well-nourished man, with deeply-jaundiced conjunctivae, tongue clean, appetite poor, no digestive disturbances. Bowels regular; stools very pale and offensive, but containing some bile. There was no pyrexia. Pulse 112, respirations 20. The abdomen showed well-marked signs of ascites. The liver was greatly enlarged, and occupied the whole of the upper part of the abdomen to beyond the level of the umbilicus. Its surface was very hard and nodular, but there was no tenderness. Its lower edge was sharp and freely movable with respiration and its upper limit of dullness was normal.

The gall bladder was not palpable. The spleen could not be felt. The urine contained a slight cloud of albumen, and was loaded with bile pigment. The other organs were normal.

After-history.—On June 3rd the abdomen was aspirated, and 18 oz. of a deeply bile-stained fluid drawn off. The patient rapidly sank and died on June 7th, five days after admission.

Necropsy.—The peritoneal cavity contained a considerable quantity of bile-stained ascitic fluid. The liver was enormously enlarged, weighing 27½ oz. (over 17 lb.). The enlargement was of a uniform character, involving the whole organ, and there were no adhesions to surrounding parts. Its surface was everywhere nodular (as shown in photograph), and the nodules were of a soft, semi-elastic consistence, though the bulk of the liver generally was remarkably tough. On section the liver showed a uniform appearance throughout of thick, strong, whitish bands of fibrous tissue, enclosing in their meshes islets of a deeply bile-stained soft substance. The gall bladder was distended with thick bile, but otherwise normal. The main bile ducts were quite free, and there were no enlarged glands in the portal fissure. The spleen was somewhat tough, and weighed 6 oz. All the other organs were quite normal, and a patient and thorough search failed to discover any growth elsewhere, except three small white nodules, rather larger than a pin's head, on the visceral pleura of the middle of the outer surface of the lower lobe of the left lung, and a small nodule in one of the bronchial glands. Microscopical examination of the liver showed an infiltrating spheroidal carcinoma with very marked cirrhotic changes throughout the whole organ.

CASE II.

C. S., a man aged 56, was admitted into the Cardiff Infirmary on June 19th, 1902, complaining of "swelling of the stomach."

History.—He said that he was in good health till a month ago, and that the abdominal swelling had come on suddenly, and reached its present state within a few days. He gave no history of pain, jaundice, or of any other symptoms. He had been a very heavy spirit drinker for many years, but had always before the present illness enjoyed good health except for pneumonia three months previously.

State on Admission.—He was a fairly well-nourished though anaemic man. Tongue furred, breath very foul, appetite poor. No digestive disturbance. Bowels regular; stools very pale and extremely offensive. There was well-marked ascites. The liver was not palpable, and dullness

normal; no jaundice; no pain or tenderness. Spleen not felt. Urine contained a slight trace of albumen, but no bile. The temperature for the first ten days after admission varied up to 100° at night, but afterwards remained normal. Circulatory System: Pulse 104, regular, and compressible; heart not enlarged. There were soft haemic murmurs over the mitral and pulmonary areas. Respiratory System: Slight dyspnoea and a troublesome cough, but very little expectoration. There were a few crepitations at the right base.

After-history.—On July 16th there was slight haematemesis, but no melaena. The patient sank rapidly, and died on July 19th.

Necropsy.—The peritoneal cavity contained a considerable amount of straw-coloured ascitic fluid. Liver enlarged, weighing 78 oz., and everywhere invaded by numerous large nodules of cancerous growth. No enlarged glands in portal fissure. Bile passages and gall bladder normal. Spleen enlarged and very tough, weighing 23 oz. Kidneys slightly cirrhotic. Stomach not dilated, veins in mucous membrane engorged. At the under aspect of the pylorus was a small growth measuring ½ in. by ¼ in.; it did not project, and was covered by intact mucous membrane, and was white and fairly firm, and could not be felt from the outside. It was, in fact, a small, thin, white "plaque" of growth situated in and almost entirely confined to the submucosa, and might easily have been overlooked.

Both of these cases present several points of interest both from a clinical and a pathological point of view. The chief in connexion with Case I are:

1. *Duration of Illness.*—The history of the illness was a very short one, the patient being apparently well until eight weeks before his death.

In this connexion it may be stated that primary carcinoma of the liver is always rapidly fatal, the average duration being only twelve weeks from the occurrence of the first symptoms. In this case no history was obtainable of the duration of the jaundice, though if it had been present for

some time previous to the other symptoms it would probably have been noticed, even though only observable in the conjunctivae, as the presence of a deep yellow colour in this situation in a negro would probably have attracted attention.

2. There was no marked wasting.

3. The only symptoms present were jaundice and ascites. The enlargement of the liver was a painless one, and there was no tenderness. In this connexion it is to be observed that there were absolutely no adhesions to surrounding parts, and that the liver was removed at the necropsy with ease.

4. At the necropsy, notwithstanding a most careful search, no primary source of infection could be found, and the case was undoubtedly one of primary carcinoma of the liver.

5. The enormous size of the liver. The organ weighed 27½ oz. (over 17 lb.).

6. The naked-eye appearances of the liver, which at first sight suggested a cirrhotic condition.

Primary carcinoma of the liver is rare, only about 4 per cent. of all cases of cancer of the liver being really primary. No doubt many cases described are really secondary to growth in the gall bladder or in connexion with the bile ducts. Before assuming that a case is "primary," it is very necessary to make a most careful and detailed search for a primary source in other parts as it is easy to overlook it.

We have introduced Case II to illustrate how small a primary growth may be which nevertheless gives rise to very marked malignant disease in the liver. In such a case, supposing death to have taken place at an earlier period when the primary pyloric growth was probably even smaller, it is not at all unlikely that it would have passed unobserved, and more particularly so if it happened to have been in some other situation than the pylorus, which would not perhaps be so closely scrutinized.

The extent of involvement of the liver in a secondary growth bears no relation to the size of the primary growth, and this point is not without interest in connexion with the operative treatment of carcinoma of the stomach. At a necropsy one not infrequently finds what appears to be a

Fig. 1.—Primary carcinoma of the liver.

most suitable case for removal of a carcinoma of the pylorus, and the liver, as far as it can be seen or felt before removal, presents a perfectly healthy appearance, and yet there are nevertheless, a few small nodules of growth on its upper surface, while in other cases of a much less promising appearance no secondary growth in the liver or other parts are to be found. This form of primary cancer of the liver, in which the cancer cells are uniformly diffused throughout the organ, and in which there is a great increase of fibrous tissue, closely resemble a coarse cirrhosis, and no doubt some cases which have been described as cirrhosis would have proved to be "cancerous" in nature if the microscope had been used.

In regard to Case 1 it is to be noted that small secondary nodules were found on the pleura, a rare condition in this class of case, but one which fixed the diagnosis in the *post-mortem* room, even without the use of the microscope. There are certain other points which may now be briefly alluded to.

Pyrexia.—It is stated that pyrexia is commoner in primary than in secondary carcinoma of the liver, and that therefore this fact might be of some use in diagnosis. In our case there was no elevation of temperature during the time the patient was under observation; it was at no time above 98° 6°.

Jaundice.—In recorded cases this symptom is sometimes absent, and when present generally slight. In our case it was well marked.

Enlargement of Liver.—The enlarged liver is generally painful and tender. In our case it was quite painless. In recorded cases the average weight of the liver is 120 to 130 oz., the largest recorded weight in primary cancer of the liver being 200 oz. The weight of the liver in this case was 272½ oz. As to its diagnosis during life from hypertrophic cirrhosis the following points may be noticed. The absence of pyrexia, the rapidly fatal issue, the presence of marked ascites, the increase of size while under observation, the size of the nodules on the surface of the liver, and, of less importance, the absence of any enlargement of the spleen. The absence of any history of alcoholic excess was not trustworthy.

Case 11 has been introduced for the purpose of illustrating two points:

1. The small size of the primary growth in the stomach, and, therefore, the importance of not assuming carcinomatous growth in the liver to be primary, especially if it be nodular, until after a most careful necropsy, as the primary source may be an insignificant one, and consequently apt to be overlooked.

2. The difficulties of diagnosis during life of some cases of carcinoma from alcoholic cirrhosis. In this case there was a very marked history of alcoholic excesses; there was no jaundice, but well-marked ascites; the liver was not palpable, and there was an absence of both pain and tenderness; the spleen could not be felt, and there were no other symptoms except slight haematemesis on one occasion.

CASE OF PRIMARY CARCINOMA OF THE OVARY.*

By MAY THORNE, F.R.C.S.I.

THE following notes on a case of primary carcinoma of the ovary are of interest, as they show two unusual points—intense localized pain due to salpingitis and absence of fluid in the pelvis or abdomen.

History.—M. L., single, aged 46, stated that she had had pain for several weeks low down on the left side of the body, that the onset of the pain had been sudden while doing a heavy wash, that she had never been free from the pain since, and that it was always worse when the bowels were moved. She had been treated by hot applications, but had not received any benefit. The bowels had been opened every two or three days. The menopause had been established fifteen months previously.

Condition When First Seen.—The abdomen moved freely, and nothing was felt on deep palpation. Bimanually the uterus and right appendages were felt to be normal and caused no pain on manipulation. The left ovary was enlarged to about the size of a walnut in its shell, was somewhat irregular in outline, and very tender. The patient was sent to bed and the bowels freely opened. There was much pain just before and during defaecation, but considerable relief from severe pain for three or four days afterwards.

Progress.—A week later the vagina was hot, and the swelling had considerably increased, so that there was now a rounded thickening at about the level of the internal os, running out to the pelvic wall. The part was so tender that a complete

bimanual examination was difficult, and the upper limit of the swelling was not well defined. No fluctuation was detected and the vaginal mucous membrane was freely movable. The swelling was so low and so close to the side of the uterus that it suggested being between the layers of the broad ligament. There was no vaginal discharge at any time, nor was there at any time tenderness over the uterus or right appendages. A week later the swelling was harder, and more irregular. It seemed probable that the case was one of pelvic cellulitis though the cause was uncertain. The history of the sudden onset of pain while doing heavy work seemed to point to the possibility of some slight rupture and leakage from a diseased tube into the broad ligament. The pain and tenderness were so localized that it seemed as if there must be some definite focus of infection. The temperature was about normal all this time, and the patient's general condition was somewhat improved by rest and treatment. At the end of three weeks the temperature began to rise at night, the mass in the left side increased, being now the size of a large orange, and as exquisitely tender as ever. I decided that an exploratory laparotomy must be done, and Miss Aldrich Blake, M.S., who kindly saw the case, agreed that operation was desirable.

Operation. The peritoneum was healthy. On the left side of the uterus the pelvis was filled with an irregular mass with numerous small cysts on its surface. The mass was hard and densely adherent to the pelvic wall. The growth was felt to extend between, and to distend, the broad ligament. The left round ligament was enlarged to the size of the little finger, and intensely congested. The right appendages were slightly thickened, but quite free. The uterus was not enlarged, quite smooth, and movable to some extent, being anchored on the left side. The anterior layer of the left broad ligament was adherent to the bladder, obliterating the utero-vesical pouch in that area, and the growth had infiltrated through the posterior aspect of the broad ligament. There was very little bleeding throughout the operation, and no fluid was found in the abdomen or pelvis.

Description of the Growth.—It consisted of a mass the size of a tangerine orange, together with the intensely inflamed left Fallopian tube. The surface of the mass was irregular from the presence of numerous small cysts, the largest of which had ruptured during the manipulation of the tumour. On section the growth was pale, yellow, and dense. No area of suppuration was seen. Mrs. Flemming, M.D., kindly examined the growth, and reported "Solid growth of ovary, carcinoma, groups and masses of cells in a fibrous stroma. The cells are in parts arranged around a lumen (adenomatous type), and in parts form solid masses. The Fallopian tube shows small-celled infiltration throughout the coats, but no new growth seen."

After-history.—The patient made an uneventful recovery, and for a couple of months was relieved. Then a plaque of growth appeared on the abdominal wall, beginning at the lower angle of the scar, where a gauze drain had been placed for twenty-four hours. There was rapid emaciation, and she died four months and a-half after the operation.

Necropsy.—The report kindly supplied to me by Dr. Myler, of the Middlesex Hospital, was as follows:

A large carcinoma of the left ovary; there was also a deposit in the right ovary. To the primary growth the ileum was adherent and had ulcerated through, so that even during life gas had been escaping from the upper part of the growth which came through the abdominal wall. There was some localized peritonitis leading to matting of the coils of the ileum. There were several secondary nodules in the liver.

A CASE OF PRIMARY SARCOMA OF THE LUNG, SIMULATING EMPYEMA.

WITH REMARKS ON THE NATURE OF PRIMARY MALIGNANT DISEASE OF THE LUNG.

By

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History.

A LITTLE girl, aged 13, "caught cold" and suffered from sharp pain in the right side of the chest, which was made worse on inspiration, about March 14th, 1902. Under medical advice she stayed in bed for three weeks, and improved so much that she got up and went out. About April 10th she caught another cold, and the pain returned with greater severity than before, and she came into St. George's Hospital.

* Read before the Association of Registered Medical Women.