hysterectomy, when she was fit and well with no hormonal or clinical evidence of recurrence.

FIG. 2.—Photomicrograph showing malignant-looking cells within the lumen of a myometrial blood vessel. ($\times 300$.)

DISCUSSION

In trophoblastic tumours no absolute criteria for a diagnosis of malignancy can be laid down from the size of the tumour, or, as Chan (1962) points out, from hormone studies. The radiological picture may also be misleading—Novak and Seah (1954b) finding six cases of hydatidiform mole with pulmonary nodular densities that had been mistaken for malignant deposits. On histological examination conventional criteria of malignancy are not applicable, for Boyd and Hamilton (1961) have shown that even normal trophoblast is invasive, and it is well known that invasive hydatidiform mole (chorioadenoma destruens) may infiltrate the myometrium widely and extend into vascular channels. In one respect, however, hydatidiform mole and chorioncarcinoma differ sharply. All moles contain chorionic villi, but out of 65 cases of chorioncarcinoma Novak and Seah (1954a) could find villi in only a single case—a finding that supported Novak's (1950) original working rule that in the

presence of chorionic villi a diagnosis of chorioncarcinoma is not justified. In spite of referring to Novak and Seah's 1954 publication, Novak and Novak (1958) state that the presence of villi "does not by any means negate a diagnosis of chorion-epithelioma." Though omitted from the most recent edition of the textbook, this statement could help to perpetuate the high rate of misdiagnosis of malignancy.

Because of the difficulties in diagnosis and the hazards of treatment all cases of trophoblastic tumours should be referred to specialized centres. When this is impossible, for the price of labelling as benign a very occasional case of chorioncarcinoma, acceptance of Novak's original working rule would prevent any case of hydatidiform mole from being misdiagnosed as malignant.

We would like to express our thanks to the consultants in charge, and to the honorary editors of the *Proceedings of the Royal Society of Medicine*, for permission to publish details of this case which was presented to the Section of Obstetrics and Gynaecology on 16 December 1962. We would also like to thank J. S. Fenton, Esq., St. Thomas's Hospital Medical School, for the photographs, and Miss A. Butler for secretarial assistance.

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Giant Hydronephrosis Simulating Ascites

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Massive or giant hydronephrosis has been described on a number of occasions (Hoffman, 1948; Earlam, 1950; Hancock, Lee, and Anderson, 1954). It is rare, however, for the condition to reach such a size that it simulates ascites. Recently Weil and Rosenberg (1962) have described such a case in a 28-year-old man with a history of progressive abdominal swelling of eight months' duration, in whom the pelvis of the right kidney formed a huge cyst. This filled the abdomen and contained 22 l. of fluid at operation, after tapping had already produced a further 14 l. Nephrectomy was successfully carried out.

We describe a similar case in an older man with a very much longer history of abdominal swelling but few other symptoms.

CASE HISTORY

The patient, who was a male civil servant aged 49, was seen first on 10 October 1962 complaining of attacks of transient dizziness of three to four weeks' duration. He said that his abdomen had

always been rather prominent and that even at school this was a subject of comment by his contemporaries.

In August 1940, when he was in the Army, he fell into a gunpit, striking his abdomen on a wooden post. Later that day he complained of lower abdominal pain and was taken into the War Emergency Hospital, Swansea, where laparotomy was performed and "an acutely inflamed ascending colon—very distended" was found, caecostomy performed, and a catheter tied in. A radiograph later showed no intrinsic lesion in the colon, but the caecum, the ascending colon, and the transverse colon were displaced downwards and to the left. He recovered completely and thereafter led a perfectly normal life though his abdomen was always rather large. In 1960 this became more noticeable and caused him discomfort on lying down. It gradually got worse but without accompanying symptoms until the attacks of vertigo for which he came into hospital on 23 October 1962.

On Examination.—There was no dyspepsia, and bowel movement and micturition were normal. His abdomen was grossly distended and was larger to the right of the midline than to the left. There was a fluid thrill present. It was not possible to "dip" on to any solid mass within the abdomen. No other abnormality was found. The blood-pressure was 160/95. The urine showed no sugar or albumin. The serum electrolytes were all normal. All the hepatic efficiency tests were normal, but radiographs of the abdomen showed the stomach, duodenal, and bowel shadows to be displaced upwards and to the left under the diaphragm and the right renal outline could not be identified. The ease with which the fluid

thrill could be elicited raised the possibility of ascites, and on 1 November 1962 paracentesis abdominis was carried out. Twenty-two pints (11.1 l.) of fluid were removed—unfortunately only the cytology of this fluid was examined and was not helpful. An intravenous pyelogram was then done and showed normal excretion on the left side. On the right there was a small opacity, about the size of a pea, just above the 12th rib which was not present in the control films. Cystoscopy followed by retrograde pyelography showed a bladder of normal size, and though on right ureteric catheterization the catheter lay on the right side in the pelvis it then passed across the midline of the sacrum and came to lie in the left iliac fossa (Fig. 1). None of the medium entered a renal pelvis. After this procedure the patient had retention of urine requiring catheterization, and four days later he had an attack of auricular fibrillation that lasted for three days. On the fourth day the catheter was removed, he passed urine normally, and the rhythm returned to normal. On the above findings a diagnosis of massive hydronephrosis was made and laparotomy was carried out on 26 November 1962.

FIG. 1.—Right ureteric catheter *in situ*.

FIG. 2.—Grossly enlarged hydronephrotic kidney.

At Operation.—A very long right paramedian incision was required to expose the enormous kidney (Fig. 2). The peritoneal cavity was displaced entirely into the left half of the abdomen, except in the pelvis, where the sigmoid colon was in its normal position. The peritoneum was quite easily stripped from the hydro-

nephrotic sac and the major difficulty was that of freeing the kidney from the abdominal wall in the right flank. Here recognizable renal tissue was found firmly adherent to the abdominal muscles, from which it had to be dissected. There was no apparent obstruction at the pelvic-ureteric junction and pressure over the hydronephrotic sac produced a flow of urine down the normal-sized ureter. He had a slight degree of ileus for three days after the operation, but thereafter his progress was satisfactory.

Pathology.—An enormous hydronephrosis could be seen measuring $50 \times 36 \times 15$ cm. The sac contained $11\frac{1}{2}$ l. (23 pints) of thin, cloudy, brownish, uriferous fluid. Only remnants of renal tissue remained. The inner tissue lining of the sac was pink in colour and speckled with haemorrhagic areas. No calculi were present. The ureteric opening was of normal size and the ureter was not dilated.

Histologically, this was a simple hydronephrosis of the developmental type. Remnants of renal tissue showed compression atrophy, but surviving glomeruli appeared normal (Fig. 3). The wall of the sac showed collagenous fibrosis and patchy chronic inflammatory cellular infiltration.

FIG. 3.—Slightly compressed, functioning renal tissue. ($\times 85$.)

COMMENT

A case of massive hydronephrosis presenting as ascites is reported. Such cases are unusual, but in reviewing the literature we have encountered similar cases. This patient is remarkable for four reasons: (1) The length of the history of nearly 40 years—the longest reported appears to be 17 years. (2) The normal active life the patient has led in spite of abdominal distension. (3) The pre-operative diagnosis based on the catheter appearance and the presence of a small quantity of opaque medium to the affected kidney. In none of the other cases reported was the affected kidney visualized at all. (4) The fact that there was no obstructive factor and the ureter was patent and the presence of normal secreting tissue in the wall of the huge mass.

Surgical treatment was entirely satisfactory and successful, and the condition should be borne in mind in cases of unexplained "ascites."

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