There is a peculiarity about the patient recovering from anaesthesia that is known, I imagine, to comparatively few—a sense of isolation and loneliness that may be quite foreign, as it was in my own case, to one's natural temperament. After an anaesthetic a patient is to some degree conscious sooner than might be supposed. I do not think a patient should ever be left alone on the supposition that he knows nothing or feels nothing. He feels very soon, and the sympathetic psychic touch of the nurse to whom he is accustomed—not a stranger—or that of an intimate friend, will prove a great comfort to him. After my prostatectomy, before I could speak other than with a thick tongue, I said, "Nurse, talk to me"; but she did it not and went on reading her book, for which I find it rather hard to forgive her, although she was a good surgeon's assistant.

You will by this time infer that my ideal surgeon is a man who, with all the general and special professional knowledge and skill of the day, illustrates, perhaps even more than the physician, that state of mind which results from contact with at least a little of every important department of culture; and who is possessed of that rarest and most valuable of all human gifts—the power to put one's self in another's place.

A MALIGNANT GROWTH OF THE KIDNEY.

By KEITH MONSARRAT, M.B., F.R.C.S.E.,

LECTURER ON CLINICAL SURGERY, UNIVERSITY OF LIVERPOOL; SURGEON TO THE NORTHERN HOSPITAL.

THE following case of malignant growth of the kidney, removed by operation at a comparatively early stage of development, offers some interesting features which seem to make it worthy of record.

A. R., aged 28, a bricklayer, was admitted to hospital on November 6th, 1909.

History.

In May, 1909, his first symptom appeared in the form of painless haematuria. On the third day he had violent pain in the right loin, passing down to the region of the right hip and to the right testicle. The pain was relieved by treatment. Haematuria persisted for a week. In July he went to camp,

about the centre of the organ projecting slightly on its anterior face. After passing an elastic ligature round the pedicle the kidney was incised into the pelvis; on the cut face a growth was seen surrounded by cortical substance, and possessing a definite dense white capsule; on inspecting the pelvis a mass of soft consistency was found projecting into it, and the source of the haemorrhage was seen. As the penetration into the pelvis of naked growth pointed to malignancy, the kidney was removed.

The patient left the hospital well on November 25th, and was seen on December 18th in good health.

Description of Kidney after Removal.

The appearance of the organ after removal is shown in the accompanying photograph. Below the centre and surrounded by renal gland tissue a spherical mass is seen on each side which in the fresh state was the diameter of a halfpenny. It possesses a very well-defined capsule, the growth tissue itself being of a grey-yellow colour and soft. In the pelvis on each side a projecting mass is seen and to the summit of that on the right side of the picture clot is adhering. The projecting mass is purple-red in colour. A small clot is seen free in the pelvis.

The growth was examined histologically and presents two types of structure between which there are no lines of demarcation, that is to say single sections show both types though in varying degree. One type is that which is recognized as characteristic of the renal growths which arise in adrenal "rests," the hypernephromata; large cells with clear cell bodies and small spherical nuclei, polygonal in shape and arranged in masses with coarse trabeculae between them. The other type may be described as cuboidal-cell carcinoma; cells, with darkly staining cell bodies and large nuclei, arranged in branching columns atypical and irregular.

If the second type of cell growth alone had been found, the tumour would have been described without hesitation as a cancer of the kidney without special histological peculiarities; the presence of the first growth type shows that it had its origin in adrenal tissue.

The points worthy of note are:

1. A growth of typical carcinoma structure arising in relation with adrenal tissue.

2. The situation of the adrenal "rest," surrounded for the most part by renal cortex.

3. The prominence of haematuria as a symptom.

Dissemination in relation to hypernephromata is known sometimes to take the form of wide distribution of secondary growths showing the typical adrenal-like structure. In this case local malignancy in the form

Photograph of kidney removed, with illustrative diagram. A, Growth in section, showing capsule. B, Growth projecting into renal pelvis. C, Clot free in pelvis. D, Renal pelvis.

and while there had a second attack of haematuria without pain; a third painless attack occurred a few weeks later. From this time until November 5th he had no symptoms, but on that day blood appeared again in the afternoon, followed a few hours later by violent lumbar pain. In the course of this attack he was admitted to hospital.

Condition on Admission.

His symptoms were: (1) Severe pain radiating from the right loin down to the right groin and the right testicle; (2) blood in the urine sufficient to give it a deep port wine colour without clots; (3) vomiting. The haematuria steadily diminished during the next few days. It was determined that blood was coming from the right kidney, and as radiography gave a negative result, the diagnosis was renal growth. The right kidney was not palpable.

Operation.

On November 12th the kidney was exposed by an oblique incision in the loin. On palpation *in situ* a firm nodule was felt

of capsule transgression and infiltration was associated with the growth of a carcinoma type, although the tumour betrayed its origin in adrenal tissue by displaying the characteristic structure of the latter in part. This suggests that a certain number of malignant growths of the kidney now classed simply as carcinomata may commence in adrenal rests, their origin being obscured by the active carcinoma growth soon after transformation has taken place.

Most described adrenal "rests" in the kidney are subcapsular. In this case the encapsulated portion of the growth showed that the "rest" in which it originated was embedded in renal cortex.

Many hypernephromata are latent throughout; a certain number have been discovered accidentally in the post-

mortem room. Many of the described examples have shown no local malignancy, displacing and not infiltrating, and remaining very definitely encapsuled. This has given rise to the statement that absence of hæmaturia is characteristic of this growth. This statement is, however, much too absolute. Authorities whose records cannot be questioned—Israel, for example—have described series of such cases in many of which hæmaturia was a prominent symptom.

It appears clear that the renal tumours arising in adrenal "rests" do not belong exclusively either to the group of simple tumours or to that of malignant tumours. Some undoubtedly are simple clinically and "typical" histologically, others malignant clinically and "atypical" histologically.

PERITONEAL PSEUDO-MYXOMA ORIGINATING FROM THE VERMIFORM APPENDIX.*

BY

WILFRED TROTTER, M.S., F.R.C.S.,

SURGEON, EAST LONDON HOSPITAL FOR CHILDREN; ASSISTANT SURGEON, UNIVERSITY COLLEGE HOSPITAL.

THERE is, perhaps, no part of the body which shows so varied a series of morbid processes as the peritoneum. This is in part due, no doubt, to the immense variety in the nature and severity of the injuries to which the peritoneum is subject and its equally inexhaustible versatility in responding to them. In the almost infinitely finely graded series of peritoneal lesions we may make a rough distinction into two classes: First, those which are primarily microbic or in which a microbic process comes secondarily to acquire pre-dominant importance, and secondly, those in which the

source of injury is non-microbic and the resulting process of reaction runs its course without microbic complication. The first class includes practically all the forms of peritonitis which are at all commonly met with by the clinician. The second class, which is perhaps more familiar to the pathologist, is, as a whole, very uncommon clinically, and on that account its rare appearances in practice are likely to be the cause of difficulty in diagnosis and prognosis. It comprises the changes which accompany the presence in the peritoneal cavity of foreign substances which are absorbable slowly or not at all, irritating enough to produce some reaction but not enough to produce any extensive transudation of organisms from the bowel, and in themselves relatively

or wholly aseptic. Such conditions may, for want of a better name, be referred to—following the custom of German pathologists—as "foreign body peritonitis."

Two broadly distinguishable types of this form of peritonitis present themselves. First, that in which the irritating substances are numerous and small, such as the ova of tapeworms, the hooklets of echinococcus embryos, or minute fragments of undigested food left after a spontaneously recovering or successfully treated perforation. In this form the reactive changes are usually much more prominent than the irritant itself, and the resulting picture is that of a pseudo-tuberculosis which may bear to the naked eye, and even to the microscope, the closest resemblance to a true tuberculous peritonitis.

The second type of foreign body peritonitis is that in which the irritating substance is very conspicuous and the reactive changes very slight. The commonest example of this condition is the *Pseudo-myxoma peritonei*, which occasionally follows the rupture of certain ovarian cysts.

Through the movements of the intestinal coils the contents of the cyst are distributed amongst the viscera throughout the whole peritoneal cavity, producing very peculiar and thoroughly characteristic changes, which were first described by Werth¹ as a foreign-body peritonitis. In consequence of the mechanical and chemical irritation of the peritoneum there arises a reactive inflammation which leads to a slow removal of the gelatinous material by absorption, organization, and encapsulation. The last occurs by penetration of the masses of mucinous material by vascular processes derived from the connective tissue of the peritoneum. These processes ramify throughout the gelatinous masses, subdividing them by a fine connective tissue network.

This is especially marked, as a rule, in the great omentum, which is hugely thickened, and appears to be transformed into a congeries of translucent cysts (Merkel).²

Following the demonstration of the true nature of this condition by Werth in 1884, there was some controversy as to how far the course of events was as he had described, and how far the result was contributed to by actual metastasis of the original growth upon the peritoneum. Olshausen

was able to show that the latter mechanism did at times act, but the original explanation of Werth remained uncontroverted for many cases, and was strengthened indirectly when, in 1901, Fraenkel³ published the first case in which a similar condition was shown to be due to the rupture of a vermiform appendix distended with mucus. The case was that of a man of 79, who had died of cerebral softening without having shown during life any evidence of an abdominal disease, so that the condition was found quite unexpectedly *post mortem*. Large free gelatinous masses of mucoid material were found in the pelvis and in the right iliac fossa; the peritoneum in contact with the masses showed a peculiar villous condition due to the out-

growth of fine ramified processes covered by endothelium. The case remains unique in the fact that there was no encapsulation of the mucoid material as there has been in all the other cases yet described. There was a cystic dilatation of the appendix, which had ruptured.

Fig. 1.—Piece of omentum removed at operation. The specimen has lost a great deal of its mucinous material through being stored in alcohol for many months. Still, however, the resemblance to a colloid carcinoma is very close. The lighter parts of the photograph show the normal omental fat, the darker parts are the translucent gelatinous masses of encapsuled mucin incorporated into the substance of the omentum.

Fig. 2.—Microscopic section under low power of pseudomyxomatous omentum. The delicate stroma-like network of inflammatory exudate and the general resemblance to a colloid carcinoma are well shown.

* Read before the Pathological Section of the Royal Society of Medicine.