Case 117 A patient with a very distended bladder

Figure 117.1

Figure 117.1 shows a 72-year-old grocer who is still running his own street corner shop. He walked into the surgical outpatient clinic complaining of some frequency passing his urine. This was the surprising appearance of his abdomen when he lay on the examination couch.

On taking a detailed history from the patient, he had experienced increasing frequency of micturition, dribbling and a poor stream for the past 5 or 6 years, but put this down to 'getting old' and did nothing about it. In the past 3 months this was becoming a real nuisance. He was now dribbling urine 30 to 60 min during the day and several times at night and sometimes wet himself, especially in bed and while asleep. Apart from this, he felt quite well and had come to the clinic straight from working in his shop.

On examination, as can be seen in Fig. 117.1, he looked well with a good colour and a moist tongue. Abdominal examination revealed this large smooth, painless swelling, which reached to just above the umbilicus and which was dull to percussion. On rectal examination, the prostate was considerably and smoothly enlarged and was rubbery in consistency.

What is your clinical diagnosis?

The patient has *chronic* retention of urine, due to a clinically benign prostatic hypertrophy. *Acute* retention is extremely painful, but, in the chronic case, the bladder becomes progressively and gradually distended.

The intense frequency in these patients is actually dribbling of urine from the full bladder, the so-called 'retention with overflow' or 'overflow incontinence'.

Apart from benign prostatic hypertrophy, what other local causes are there for retention of urine?

As with any obstructed tube in the body, think of 'causes in the lumen, in the wall and outside the wall':

- Within the lumen of the urethra: Stone or blood clot ('clot retention').
- In the urethral wall: Urethral stricture (see Case 113, p. 235).
- Outside the wall: Carcinoma of the prostate (see Case 116, p. 241) or occasionally pressure from faecal impaction or from a pelvic tumour.

What may be the causes of retention of urine in the absence of an actual urethral obstruction?

The 'general' causes of retention of urine may be classified into:

- Postoperative.
- CNS disease, e.g. paraplegia from trauma, tumour, etc., multiple sclerosis, diabetes mellitus.
- Drugs, e.g. anticholinergics, tricyclic depressants.

What clinical features might suggest renal damage (uraemia) in a patient such as this with chronic retention?

The patient with uraemia may complain of headache, anorexia and vomiting. He may have a dry coated tongue and be drowsy.

How would you further investigate and manage this patient?

He needs urgent admission to the urological unit and

prompt further investigations. The essentials are a full blood count, as well as serum electrolytes, urea and creatinine to investigate his renal function, which may have been impaired by chronic back pressure on the kidneys. A prostate-specific antigen (PSA) estimation could well be elevated even in advanced benign disease and in the elderly subject, so it is by no means a diagnostic test for prostatic carcinoma. An ultrasound of the renal tract is invaluable, demonstrating the urine filled bladder as well as any secondary hydronephrosis and documenting the size of the kidneys.. A prostate-specific antigen (PSA) estimation could well be elevated even in advanced benign disease and in the elderly subject, so it is by no means a diagnostic test for prostatic carcinoma. An intravenous urogram is valuable in demonstrating the anatomical details of his urinary tract (see Case 115, p. 239).

In this patient, the investigations were within normal limits, apart from a raised creatinine (154 μmol/L) and the ultrasound scan, which confirmed a large prostate, distended bladder and mild bilateral hydronephrosis.

He was catheterized, his renal function recovered, and he subsequently underwent transurethral resection of the prostate; the prostatic chippings confirmed benign prostatic hyperplasia.