

## Case 115

# A man with difficulty passing urine and with an interesting X-ray



Figure 115.1

A retired postal worker aged 70 years was referred to the urological clinic with a history of increasing difficulty passing his urine. He first noticed increasing frequency of micturition about 5 years previously. This became progressively more marked, so that he was now passing urine every 2 or 3 h during the day and three or four times at night. There was a good deal of urgency, so that he now planned any journey away from home to ensure that there was a lavatory available in the vicinity. The stream was poor, there was dribbling and he was occasionally incontinent of urine. The urine itself was clear and he had never seen blood in it. Apart from this, his general health was good. He was a smoker and had a morning productive cough.

On examination, he was thin and appeared well. On abdominal examination there was a smooth swelling to feel three fingers above the pubis, which was dull to percussion. Pressure on this gave him the desire to pass urine. On rectal examination there was a considerable smooth, rubbery enlargement of the prostate.

His routine full blood count and biochemistry were normal, including his serum urea and creatinine. The chest X-ray was clear. His serum prostate-specific antigen (PSA) was 8 ng/ml. (Note that although the normal upper limit for this is less than 4 ng/ml, this may be increased in benign prostatic hypertrophy in the range of 4–12 ng/ml.)

An intravenous urogram was ordered and Fig. 115.1 shows the 25 min film.

### What evidence can you see in Fig. 115.1 of prostatic enlargement?

Intravesical enlargement of the prostate is shown by the globular filling defect at the base of the bladder. The bladder outline itself is slightly irregular instead of being completely smooth. This suggests that it is thickened and trabeculated due to chronic obstruction.

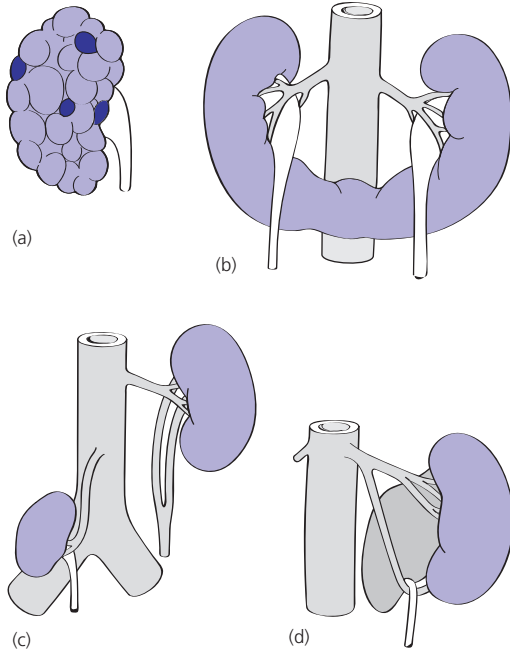
### What do you notice about the appearance of the lower ends of the ureters?

The terminations of the ureters are hooked upwards. This is caused by the enlarged prostate pushing up the trigone of the bladder.

### Apart from the urinary tract, what else should you look for carefully on films in a patient with prostatic symptoms?

The lumbar spine and pelvis should be carefully studied on these X-rays for evidence of secondary deposits, frequently sclerotic, which are often present in patients with prostatic cancer (see Case 116, p. 241).

## Part 2: Cases



**Figure 115.2** Renal abnormalities: (a) polycystic kidney, (b) horseshoe kidney, (c) pelvic kidney and double ureter, and (d) aberrant renal artery and associated hydronephrosis.

**The renal pelvises on this film demonstrate a congenital renal abnormality. What is this?**

Note that the renal pelvises are deviated laterally. This is the typical appearance of a horseshoe kidney, a diagram of which is shown in Fig. 115.2.

**There is another abnormality to see on the X-ray, adjacent to the right ureter, which is not related to the urinary tract. What is it?**

This area of speckled calcification is typical of a calcified tuberculous mesenteric lymph node, probably due to ingestion of contaminated milk as a child. It is sometimes mistaken for a radio-opaque ureteric stone.