key points

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Although the incidence of testicular cancer has increased over the past few decades, testicular tumours are still rare and many GPs will only see one or two new diagnoses in their career. In one UK study, out of 845 patients who had been referred with testicular lumps or pain, only 33 (4%) were diagnosed with testicular cancer. Epididymal cysts, or spermatoceles when containing sperm, were the most common finding, and were found in 228 patients (27%). The second most common finding was hydrocele, a fluid collection between the parietal and visceral layers of the tunica vaginalis, which was found in 96 patients (11%).

The vast majority (95-98%) of testicular cancers are germ cell tumours. These can be further subdivided into seminomas and non-seminomatous tumours, which are most common in the fourth and third decades of life respectively. In Western Europe, five-year survival for testicular cancer is approximately 95%. It is almost 100% for stage 1 seminomas, but falls to 48% in the poorest prognostic group – non-seminomatous tumours with metastases at diagnosis. Cure rates have improved dramatically in the past 30 years since the introduction of cisplatin-based combination chemotherapy.

Although a painless testicular mass (within the body of the testis itself) is pathognomonic of testicular cancer, this was the presenting complaint in only half the patients in a Spanish registry study. Scrotal pain was the initial symptom in 20% of cases and so should not necessarily provide reassurance. Furthermore, 7% of patients have gynaecomastia and 11% of patients have back pain due to metastasis.

When examining scrotal swellings, the key question is whether the lump is intra- or extra-testicular, as palpable intra-testicular lesions are highly likely (around 90%) to be malignant, whereas those lying outside the testis are usually benign. The use of a pen torch will give good information on whether a lump is solid or fluid filled, such as a hydrocele which will transilluminate brilliantly.

NICE recommends that men with non-painful enlargement or change in shape or texture of the testis should be referred via the two-week wait cancer pathway. Any painful or tender mass within the body of the testis which is not suggestive of infection should also be referred. GPs should refer patients for an urgent ultrasound if they are aged 20-40 with a hydrocele; if there is uncertainty as to whether the mass is intra-testicular or extra-testicular; or if the testis cannot be fully palpated.

Treatment for testicular cancer involves inguinal (radical) orchidectomy, sometimes followed by chemotherapy, and in more advanced cases subsequent lymph node dissection.