

key points

SELECTED BY

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BPH is one of the most common diseases of older men, with more than 70% of men over 70 years affected, and prostate cancer is the most common cancer in men in the UK. The incidence of localised prostate cancer is rising because of increased PSA testing and publicity surrounding prostate cancer is arguably at its highest ever level.

Early (localised) prostate cancer is often symptomless, which fits with our knowledge that 80% of prostate cancers originate in the peripheral (outer) zone of the prostate gland. In contrast BPH occurs more centrally in the periurethral transitional zone and hence causes obstruction of the urethra at an earlier pathological stage. Prostate cancer generally presents in one of the following three ways: asymptomatic patients who are screened (usually by a PSA test); men with LUTS who are investigated and undergo prostate biopsy; or patients with symptoms of metastasis such as bone pain.

Men can be reassured that the main cause of LUTS is BPH.

Only a small proportion of men have LUTS that are directly attributable to prostate cancer. Digital rectal examination (DRE) gives an evaluation of prostate size, which is relevant in particular to BPH management, and along with PSA testing it is one of the only ways of differentiating clinically between BPH and prostate cancer. If a nodular abnormality is present there is around a 50% chance of a diagnosis of prostate cancer being made on biopsy.

Raised levels of serum PSA may be suggestive of prostate cancer, but diagnosis requires histological confirmation in almost every case. The use of PSA testing can be improved by considering alternative causes for a rise in serum PSA. The PSA can be elevated in men with particularly large prostates in the absence of prostate cancer. A normal PSA, PSA density and DRE can give reasonable confidence with regards to excluding clinically significant prostate cancer.

The definitive investigation for prostate cancer is prostate biopsy but it carries significant risks, in particular bleeding and infection and up to 20% of tumours can be missed despite biopsy. BPH is not a known risk factor for prostate cancer, although the two frequently coexist. Age is the strongest predictor of prostate cancer risk, along with family history. Men from families harbouring the BRCA2 gene also have a higher risk of developing prostate cancer. The other major risk factor is ethnic origin with African or Caribbean men having a 3-fold higher risk.

BPH is not considered to be a precursor of prostate cancer. It is likely that although BPH may not make prostate cancer more likely to occur, it may increase the chance of diagnosing an incidental cancer.