

PROSTATE CANCER

PROSTATE SIZE CAN PREDICT UPGRADING

Prostate size is an independent predictor of Gleason score upgrading (GSU), according to a recent analysis by Davies *et al.* of 1,251 men with D'Amico low-risk prostate cancer. In this study, GSU affected 31% of all patients and was 50% more common in men with smaller prostates ($\leq 36 \text{ cm}^3$) than in men with larger prostate volumes ($\geq 58 \text{ cm}^3$).

A link between prostate size and GSU was first proposed in 2003, when the Prostate Cancer Prevention Trial results suggested that a reduction in prostate volume could improve prostate sampling accuracy. The investigators hypothesized that larger prostates might be more susceptible to GSU. However, Davies and colleagues have established a negative correlation.

This finding is not novel. Several research groups have published similar findings and attributed these to higher rates of aggressive tumors in small prostates—a theory supported by reports of a 7.5-fold increased risk of high-grade disease in small ($< 20 \text{ cm}^3$) versus large ($> 100 \text{ cm}^3$) prostates.

Although the Davies study is not the first of its kind, it is noteworthy on account of its size and the authors' observations regarding other contributory factors to GSU risk. For example, upgraded patients tended to be older, with higher baseline PSA levels, more positive cores, and greater tumor involvement on biopsy.

The paper also highlights concerns regarding the current variability in reporting biopsy pathology. Delays to updating institutional protocols with the revised 2005 Gleason definitions could result in a nonuniform approach to grading and an increased risk of GSU.

The ability to accurately predict GSU is important, particularly in patients with low-risk disease, as this may help clinicians to determine patient eligibility for less aggressive treatment options, such as active surveillance and brachytherapy. Men with a significantly increased risk of GSU might benefit from radical prostatectomy, which enables more accurate pathological staging, and should be appropriately counseled on their management options and prognosis.

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Original article Davies, J. D. *et al.* Prostate size as a predictor of Gleason score upgrading in patients with low risk prostate cancer. *J. Urol.* doi:10.1016/j.juro.2011.07.104