

PROSTATE CANCER

MRI detects hidden aggressive anterior tumors

Men with known low-risk prostate cancer or repeated negative biopsies in combination with a contradictorily high PSA level might harbor an evasive anterior tumor and should be considered for MRI. This is the recommendation of a team led by Nathan Lawrentschuk from the University of Toronto, Canada, whose research has recently been published in *BJU International*. Tumors anterior to the urethra are frequently missed by traditional diagnostic procedures; they cannot be detected by digital rectal examination and the standard grids used for ultrasound-guided needle biopsy sample only the peripheral zone of the prostate. “When a discrepancy exists between PSA dynamics and low-volume prostate cancer, think of anterior tumors and think of MRI,” advises Lawrentschuk.

The investigators retrospectively identified 31 men from their institution with anterior tumors on MRI,

27 of whom were later found to have positive anterior biopsy samples (minimum 10 cores; median 13). In other words, MRI had a positive predictive value for anterior tumors of 87%. Although others have suggested saturation biopsy, perineal biopsy or transurethral resection to detect anterior tumors, the authors here emphasize that MRI is non-invasive and can be used to direct subsequent biopsies.

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Lawrentschuk and his team also noted that the evasive anterior tumors were particularly aggressive. 13 of 31 patients went on to have radical prostatectomy and the rate of positive surgical margins was considerably higher than expected in these men. This observation led the

investigators to propose a new type of lesion. “Physicians should be aware of the behavior of these tumors, which we describe as Prostatic Evasive Anterior Tumor Syndrome, or PEATS,” says Lawrentschuk.

The retrospective nature of their study prevents the authors from making any conclusions regarding the prevalence of PEATS. They are currently undertaking a prospective trial, in which all patients considered suitable for active surveillance will undergo MRI. So far, 40 men have been enrolled and 23 anterior tumors have been identified definitively on MRI. Biopsies have been indicated in 4 patients, 3 of which were positive for high grade or extensive prostate cancer.

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Original article Lawrentschuk, N. *et al.* 'Prostatic evasive anterior tumors': the role of magnetic resonance imaging. *BJU Int.* doi:10.1111/j.1464-410X.2009.08938.x