

PROSTATE CANCER

Effects of 10-plus-core biopsy on erectile and voiding function

The degree of discomfort experienced by men during prostate biopsy has been markedly decreased by the use of periprostatic nerve block (PPNB). However, the effects on erectile and voiding function—important considerations given the increasingly younger age of men undergoing biopsy—have not been intensively investigated. A prospective study performed in Germany has now evaluated the extent of these post-procedure effects in patients undergoing 10-core or 20-core prostate biopsy, with or without PPNB.

The study included 198 men with suspected prostate cancer on the basis of digital rectal examination findings or elevated PSA level. Patients were randomly assigned to undergo 10-core biopsy with ($n=71$) or without ($n=74$) PPNB (administered as prilocaine hydrochloride). Those with a previous negative biopsy but suspiciously high PSA velocity underwent 20-core saturation biopsy with PPNB ($n=53$). The primary end points were changes

in the International Prostate Symptom Score (IPSS) and International Index of Erectile Function 5 (IIEF-5) score at 1, 4 and 12 weeks after biopsy. 80 patients were diagnosed with prostate cancer as a result of examination of biopsy tissue. These men were excluded from the subsequent analyses.

IPSSs were significantly increased at week 1 in patients who underwent 10-core biopsy with or without PPNB, but were not significantly different from baseline thereafter. In the 20-core biopsy group, IPSSs were markedly increased at all three time points, but were only significantly higher than baseline scores at weeks 4 and 12. Transient decreases in IIEF-5 scores were also observed in all groups at week 1; scores at 12 weeks did not differ from baseline.

Tobias Klein, lead author of the study, concluded that these results “prove that there is a measurable impact” of prostate biopsy on voiding and erectile function. “When we perform radical prostatectomy for prostate cancer, we try to spare the



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neurovascular bundle in order to preserve erectile and voiding function whenever it is oncologically correct to do so.” He believes that the use of PPNB causes “some sort of damage to the neurovascular bundle”, and that there may also be a psychological effect of the procedure. “Some patients told me that they were just afraid of having cancer, and, therefore, their libido was influenced and diminished.” Patients should be informed of these risks before undergoing prostate biopsy.

Nick Warde

Original article Klein, T. *et al.* The impact of prostate biopsy and periprostatic nerve block on erectile and voiding function: a prospective study. *J. Urol.* doi:10.1016/j.juro.2010.06.021