SEXTANT LATERAL BASE TRUS-GUIDED BIOPSY TECHNIQUE IS SUPERIOR TO THE SEXTANT PARASAGITTAL TECHNIQUE
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INTRODUCTION AND OBJECTIVES: The cancer detection rate with a parasagittal transrectal ultrasound (TRUS)-guided sextant technique has been reported to be 20%-30% in patients with PSA levels of 4-10 and 50%-67% in men with PSA levels >10. In addition, 20%-40% of men with PSA levels between 4-10 and a prior negative TRUS-guided biopsy will have prostate cancer detected upon re-biopsy. We compared the cancer detection rate of a sextant lateral-base technique versus the standard parasagittal technique.

METHODS: Two hundred and fifty-six sextant lateral-base TRUS-guided biopsies performed were compared with 102 parasagittal TRUS-guided biopsies from our institution from 1994 to 1999. In this series, the indications for the biopsy were patients >65 years old with a PSA >4. All discrete nodules on digital rectal examination were biopsied, but induration and asymmetric abnormalities were indexed to PSA. In both groups, 3 random biopsy cores were taken from the base, mid-zone, and apex of each side for a total of 6. There was no difference between the mean PSA level in the lateral-base biopsy and the parasagittal biopsy groups (13.46 ± 7.9 vs. 12.11 ± 7.0; P = 0.85). Prostate cancer and prostatic intraepithelial neoplasia (PIN) detection rates were compared between the two techniques. Patients with a diagnosis of cancer were stratified in 3 risk groups: group I, PSA 4-10, group II, PSA 10.1-20, group III, PSA >20.

RESULTS: The cancer detection rate in patients who underwent a lateral-base TRUS-guided biopsy and the parasagittal technique was 58% vs. 30%, respectively (P < 0.001). Also, the high-grade PIN detection was seen in 18% vs. 8% (P = 0.03). The cancer detection rate was not different between the two techniques in patients with PSA levels >20 (80% vs. 50%; P = 0.23). However, the cancer detection rate was higher in the other two risk groups who underwent a lateral-base TRUS-guided biopsy compared to the parasagittal TRUS-guided technique: group I (57.9% vs. 23.5%; P = 0.001), and group II (57.9% vs. 29.7%; P = 0.001).

CONCLUSIONS: The sextant lateral-based TRUS-guided biopsy technique yields a higher cancer detection rate as compared to the sextant parasagittal technique. Whether additional lateral-based biopsy cores (>6) will increase the cancer detection rate even further, remains to be seen.