REPEAT SEXTANT TRUS-GUIDED NEEDLE BIOPSY FOR PROSTATIC INTRAEPITHELIAL NEOPLASIA (PIN) DOES NOT REQUIRE TRANSITION ZONE SAMPLING
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INTRODUCTION AND OBJECTIVES: Many investigators recommend repeat sextant needle biopsy with additional sampling of the transition zone in patients with an initial biopsy of PIN or a negative biopsy. This study evaluated the incidence of prostate cancer in patients with PIN, stratifying the diagnosis based on biopsy location.

METHODS: We evaluated 44 men (mean age 66.73 ± 1.16) who had a diagnosis of high-grade PIN on a previous prostate biopsy. All patients underwent digital rectal examination (DRE), PSA and TRUS-guided prostate biopsy. A random, sextant lateral-base TRUS biopsy technique consisted of 3 to 4 cores from each side of the peripheral zone and 1 to 2 cores from each side of the transition zone (TZ). All patients had a minimum of 8 biopsy cores. The cancer detection rate, incidence of high prostatic intraepithelial neoplasia (PIN), and the association of TZ cancer were recorded. The patients were stratified into 4 risk groups: group I, PSA <4 (n = 8); group II, PSA 4-10 (n = 16); group III, PSA 10.1-20 (n = 18), and group IV, PSA >20 (n = 2).

RESULTS: The mean PSA was 7.0 (range from 4.6 to 10.9). The biopsy revealed cancer in 20 patients (45.5%), high-grade PIN in 16 (36.4%), and benign tissue in 8 (18.2%). The incidence of prostate cancer in the four groups was 25% (2/8), 50% (8/16), 44.5% (8/18), and 100% (2/2), respectively. In no patient was a diagnosis of cancer obtained from a transition zone biopsy. The pattern of Gleason scores (GS) of <6 in the four groups were as follows: group I, 75%, group II, 40%, group III, 37.5%, and group IV, 0%. The incidence of high-grade PIN on repeat biopsy in the four groups was 75%, 25%, 33.3%, and 0%, respectively.

CONCLUSIONS: These results suggest that the presence of high-grade PIN on the initial prostate biopsy warrant a repeat prostate biopsy irrespective of the initial PSA. Our data would suggest that the repeat biopsy does not require sampling of the transition zone.