

THE CLINICAL SIGNIFICANCE OF PYURIA AFTER TRANSRECTAL PROSTATE BIOPSY

Hypothesis / aims of study

Pyuria is observed in some patients after transrectal prostate biopsy for cancer screening. Authors analyzed for potential relationships between pyuria after transrectal prostate biopsy and cancer diagnosis.

Study design, materials and methods

A total of 299 patients from June 2008 to May 2010 without prior pyuria before biopsy whom post procedure urinalysis were taken was analyzed, retrospectively. Pyuria was defined as when 5 or more WBC was observed in high power field in urinalysis. Comparative analysis of the age, presence of diabetes, prostate volume, presence of calcification within prostate, prostate specific antigen (PSA), presence of inserted catheter, frequency of biopsy and pathological results was done between two groups; 30 patients with pyuria (group A) and other 269 patients without pyuria (group B).

Results

Mean age, prostate volume, PSA in Group A were 66.4±10.1years, 39.0±23.0cc and 6.7±1.8ng/ml, respectively, and 66.1±9.5years, 49.8±32.5cc, and 6.4±1.7ng/ml in group B, respectively. No statistically significant differences were observed between two groups with age, presence of diabetes, prostate volume, calcification and PSA. However, significant difference ($p=0.003$) was observed in catheter inserted patients, 23.3% (7 patients) from group A and 2.3% (7 patients) from group B. In pathological examination, 20.0% (6 patients) from group A and 36.1% (87 patients) was diagnosed with prostate cancer, with significant difference ($p=0.032$) and inverse correlation ($p<0.05$, $r=-0.35$) was observed in correlation analysis.

Interpretation of results

: Pyuria after transrectal prostate biopsy is inversely correlated to prostate cancer.

Concluding message

this result alone is limited to consider pyuria after transrectal prostate biopsy as independent factor during patient follow up. Authors believe anterograde multi-centered study regarding on this subject should prove this in near future.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** conventional retrospective study **Helsinki:** Yes **Informed Consent:** No