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EFFECT OF CHRONIC PROSTATIC INFLAMMATION ON CHANGES IN SERUM PSA

Hypothesis / aims of study

Chronic intraprostatic inflammation was associated with changes in serum prostate specific antigen (PSA) level. This study aims to examine changes in serum PSA after treatment with antibiotics in patients with confirmed chronic intraprostatic inflammation pathologically.

Study design, materials and methods

144 patients with confirmed chronic intraprostatic inflammation pathologically, who had gone through transrectal prostate biopsy because serum PSA level had been more than 3ng/ml at our department from January 2008 to March 2011, were retrospectively studied. The patients were classified into group treated with 6 weeks of antibiotics (Group A, n=74) and group with no treatment (Group N, n=70). Chronic inflammation was graded as I (G1: scattered inflammatory cell infiltrate within the stroma without lymphoid nodules), II (G2: nonconfluent lymphoid nodules) or III (G3: large inflammatory areas with confluence of infiltrate). Serum PSA level in three months after prostate biopsy was compared with initial serum PSA level in Group A and N. Also, changes in serum PSA was compared between each group classified according to chronic inflammation grade in Group A and data were analyzed with one-way ANOVA. Changes in serum PSA level in Group A and N were analyzed with independent t-test.

Results

There was no significant difference comparing changes in serum PSA level after prostate biopsy between Group A and N (Group A: 2.76±6.00ng/ml reduction, Group N: 2.26±6.08ng/ml reduction). Decrease in serum PSA according to the grade of chronic inflammation were 0.54±3.32ng/ml in G1, 2.19±4.86ng/ml in G2 and 6.97±12.37 in G3 within the Group A. Score of G3 compared that of G1 and G2, was significantly reduced (p=0.007, p=0.029).

Interpretation of results

It was found that there was no change in serum PSA regardless of the use of antibiotics.

Concluding message

Administration of antibiotics in severe inflammation will be considered in view of the fact that use of antibiotics reduced serum PSA level in G3 inflammation.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** IRB of St. Paul's Hospital **Helsinki:** Yes **Informed Consent:** No