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·*Letters to the Editor*·

Endotoxins in the prostatic secretions of chronic prostatitis patients: a need for further biomarkers through the use of proteomics

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Dear Sir,

Dai *et al*.[1] must be commended on their useful investigation of the clinical significance of endotoxins in the expressed prostatic secretions (EPS) of chronic prostatitis (CP) patients. However, we take issue with their conclusion. The conclusion that EPS endotoxin determination is helpful in diagnostic confirmation is plausible, however, the conclusion that it is also useful in evaluating the response to treatment in CP patients is not supported by the findings of their study. CP may express endotoxin, but unless we can demonstrate that there is a near linear reduction in endotoxin levels, following treatment of patients, one cannot make the conclusion that it will be helpful in evaluating response to treatment. This is complicated by the recent doubts raised about classification systems of CP by several groups, including Nickel *et al*. [2].

We wish to add a few thoughts as to the implications and potential for expanding on the results of this study. The findings prompt us to explore the role of multiple or supplementary markers [3] as a panel to arrive at a cumulative scoring system. In a study by Ludwig *et al*. [4] it was concluded that the determination of leukocytes in urine after prostatic massage is a feasible and reliable method compared with the analysis of EPS. Immunocytological analysis [5] of leukocyte subpopulations in urine specimens before and after prostatic massage showed that granulocytes are the predominant cell type of inflammation, but other leukocytes included macrophages and T and B lymphocytes. This indicated that both the cellular and humoral immune systems might be involved in the inflammatory process.

When using the "four glass test", that is, first-void urine (VB1), midstream urine (VB2), expressed prostatic secretions (EPS), and post massage urine (VB3), Krieger *et al*. [6] showed that combining a urethral smear with lower urinary tract localization gave optimal results for detecting urethral and prostatic inflammation. They found that VB1 and VB2 examinations had low sensitivity for detecting urethral inflammation. Examining both the EPS and VB3 proved best for detecting prostatic fluid inflammation. The current studies indicate that there are clearly markers in urine which can aid in positively identifying chronic prostates.

Current reports are limited in their definition of adequate markers for the detection and follow-up of CP. There is clearly a need for finding novel markers and it is prudent to expedite current novel techniques to find them. With the introduction of proteomics [7, 8] it would be

interesting to see what markers can be detected by the proteomic evaluation of urine and seminal fluid in men with CP.

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