

Journal of Andrology, Vol 12, Issue 5 331-334, Copyright © 1991 by The American Society of Andrology

## JOURNAL ARTICLE

# Impact of clinically silent inflammation on male genital tract organs as reflected by biochemical markers in semen

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Three hundred eight-nine healthy, infertile patients were studied to determine the effects of inflammation on genital tract organs. Clinically silent inflammation was diagnosed by measuring polymorphonuclear granulocyte (PMN) elastase in semen. Seminal vesicle, prostate, and epididymis functions were assessed by measuring fructose, citric acid, and neutral alpha-glucosidase in semen. There was a significant relationship between high PMN elastase levels and low citric acid levels in semen; fructose and neutral alpha-glucosidase were not related to PMN elastase. Semen samples with increased PMN elastase levels (greater than 250 and greater than 1,000 ng/ml) showed a high incidence of pathologic citric acid levels (67% and 73%, respectively). These biochemical data indicate that the prostate is the main target in clinically silent male genital tract inflammation.

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