

Correlation between asymptomatic urethritis with bacteriospermia in seminal plasma of fertile and infertile men

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Abstract

Urogenital infection can influence the fertilization potential of the spermatozoa, which may lead to male infertility. The symptomatic urethritis can change the semen parameters, however the role of asymptomatic urethritis in fertility is still obscure. In this descriptive investigation, a total of 148 samples from urethra and semen of fertile as well as 146 samples from urethra and semen of infertile men were examined for the presence of 5 bacterial species including streptococcus group A., Enterococcus, E.coli, coagulase positive and negative Staphylococcus. The rate of infection of urethra and semen of fertile men were 49.22% and 29.05%, respectively. The aforementioned rates were 34.9% and 60.27% for infertile men. The seminal infection was significantly different between two groups of fertile and infertile ($p < 0.01$). The results showed that the most common pathogen in semen of fertile and infertile men was Enterococcus with prevalence of 32.60% (14 cases), and 42% (37 cases), respectively. A total of 90 out of 131 samples contaminated with bacteria showed high rate of Leukocytes (pyospermia). The remaining 41 infected samples lacked or had low number of leukocytes. In conclusion, bacteriospermia is significantly higher in seminal samples of infertile than fertile men ($p < 0.01$). Therefore, the pathogens involved in urethritis may be involved in male infertility. In addition, seminal culture is necessary for detection of bacteria presence in the semen, and thus it is important to note that presence or absence of Leukocyte in semen may not represent the urogenital infection.

Keywords: Urethritis, Bacteriospermia, Pyospermia, Semen, Male infertility, and Urogenital infection.

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