عنوان مقاله:

Bacterial infection in male infertility and its relationship with semen quality and seminal plasma components

محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction and Objectives: Bacterial infections are associated with production of reactive oxygen species which could affect DNA integrity in spermatozoa, thereby reducing sperm fertilization capability. The aim of this study was to evaluate the bacterial infections of seminal plasma and its effect on sperm characteristics. Materials and Methods: Semen samples were collected from 56 infertile men and 35 fertile, referred to infertility center and subjected to standard bacterial culture. Semen analysis were assessed according to fifth edition of World Health Organization (WHO) laboratory manual for the examination and processing of human semen. Also sperm DNA integrity were carried out in each samples. Results: The prevalence of bacterial infections in semen samples was 25.4 % and 5.7% in infertile and control group, respectively. Significant differences was observed in two groups ($p<0.001$). Among all bacterial infections inform infertile patients 36.3% was Escherichia coli, 30.1% was Staphylococcus aurous, 18.8% was Streptococcus agalactiae, and 14.9% was mix bacteria. These numbers in control group were, 15.7%, 21%, 16.5% and 46.8%, respectively. The sperm motility, morphology and motility were significantly lower in E.coli and mixed species groups than others in infertile patients. This data was similar in control group. Also sperm DNA integrity was significantly lower in E.coli group than other in both infertile and fertile men. Conclusion: There our results showed that, there was a significant correlation between seminal bacterial infection and reduction of sperm quality and DNA integrity, which in turn affect spermatozoa fertility capacity. Therefore the results of the present study suggest that special seminal bacterial infections possibly affect the quality of semen in infertile patients, and that antibiotic therapy may be recover fertility potential.

کلمات کلیدی:

Bacterial Infection, Infertility, Seminal plasma, Sperm DNA integrity.