Prevalence of Bacteria Growth in Semen of Men with Significant Round Cell Count in Zaria, Nigeria

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Background: Round cells as viewed under microscopic examination of semen could either be white cell or immature sperm cell.

Objectives: To determine the prevalence of semen with significant round cell count and to find out the rate of positive bacterial growth in semen with significant round cell count.

Study Design: A cross-sectional study.

Setting: Department of obstetrics & gynaecology of a tertiary teaching hospital.

Patient(s): Male partners of women attending infertility clinic.

Intervention(s): Semen was collected for analysis and culture between January and December 2011.

Methods: Study was done from January to December 2011. Significant round cell count refers to count more than 5 million per millilitre of semen. Blood and chocholate agar were used for semen culture.

Main Outcome Measures: Percentage of semen with significant round cell count and percentage of semen with bacterial growth among semen with significant round cell count.

Results: Of the 154 semen that was analysed, there was positive bacterial growth in 22(14.3%) of the semen samples. Staphyloccocus aureus (14, 63.6%) was the leading bacteria isolate in the semen samples. Of the 154 semen, 50(32.5%) had significant round cell count and of the 50, 6(12%) had positive bacterial growth while the remaining 104 with normal round cell count, 16(15.4%) had bacterial yield. There was no significant statistical relationship(X2=0.3159, p=5741) between significant round cell count and bacterial growth in this study.

CONCLUSION: Significant microscopic count of round cells does not translate to positive bacterial growth. Semen culture should be sought rather than empirical treatment with antibiotics in resource constrained settings where Endtz test (immunoperoxidase test) that stains the white blood cells for ease of identification and counting is not available.