Evaluating semen parameters and Time To Pregnancy (TTP) in 234 couples in Isfahan

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Abstract

Introduction: Defining the lowest normal values of semen parameters, which are required for fertility, is of utmost importance in the diagnosis and management of infertile couples. These values are defined periodically by W.H.O. However, it has been emphasized that semen parameters should be determined regionally or nationally. The objective of this study was to evaluate semen parameters in fertile couples in Isfahan.

Materials & Methods: Semen samples were obtained from partners of 234 pregnant women referring to gynecologists throughout Isfahan. Questionnaires, including time to pregnancy (TTP), were filled out. Semen samples were analyzed according to WHO guidelines. Results were analyzed and odds ratios were calculated by the use of SPSS statistical software and the level of significance was considered <.05%.

Results: The 10% cut-off point for the values such as volume, density, total count, motility and normal morphology, being considered as the minimum requirement for fertility, were 1ml, 45×10^6 per ml, 75×10^6 per ejaculate, 57% and 28% respectively. Semen parameters with TTP of less than 6 months were grouped according to the mentioned cut-off points and the pregnancy ratio and relative risks of pregnancy were calculated for each group. The results showed no significant difference between the relative risks for pregnancy with respect to the cut-off points.

Conclusion: Due to lack of information on sperm parameters in different parts of the world, regional and national evaluations of these parameters is of great value for demographic studies. Genetic characteristics and regional climate as environment, may affect sperm parameters. Isfahan, for example, is situated in a region with warm and dry climate and this may justify the low mean volume and higher concentration of sperm in the obtained samples from the subjects.

Key Words: Semen parameters, Time to pregnancy (TTP), Fertile couples, Isfahan.

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