Comparison of Effects of Varicocelectomy in Different Ages in Terms of Improvement of Sperm Parameters and Fertility Rates of Patients' Spouses

Introduction and Objectives: The purpose of this study is to evaluate and compare the effects of varicocelectomy on semen parameters and pregnancy induction in spouses of varicocele induced infertility patients, in different age groups.
Materials and Methods: This prospective study was done on 85 patients with at least one year history of infertility. Semen samples were obtained from each patient at least 4 times: 2 samples at least one month prior to varicocelectomy, and the other two samples at 6 and 12 months after surgery; and changes of quantity, motility and morphology of sperms were evaluated in each patient and the mean of changes were compared between two age groups of 30 years old or younger (Group 1) and older than 30 years (Group 2). Patients' spouses were evaluated for all types of pregnancy using βHCG test and then ultrasonography in 8^{th} week of pregnancy, and were compared in different age groups. SPSS software was used to analyze the data and the methods of analysis were: K^2, T-Test and repeated measure ANOVA.
Results: Mean density of sperms in both groups were improved through one year, in group one from 40.2 $^{m}/_{ml}$ to 68.4 $^{m}/_{ml}$ and in group two from 49.7 $^{m}/_{ml}$to 58.4 $^{m}/_{ml}$ and these are statistically meaningful ($P<0.05$). One year after surgery, motile sperms' percentile in group one increased from 48.2% to 56.6% and in group two improved from 47.2% to 53.2%; results in both groups were statistically meaningful ($P<0.05$) but there was no meaningful difference between these two groups in regards this matter ($P=0.1$). Abnormal sperm morphology's percentile decreased in both groups in one year, in group one from 62.7% to 59.6% and in group two from 61.3% to 58%; which was meaningful in both groups ($P=0.03$); however, there was no remarkable difference between the groups ($P>0.05$). Percentile of pregnancy in the end of study in spouses of patients of group one was 51.1% and in spouses of patients of group two was 44.7%, which was not statistically meaningful ($P=0.9$). No remarkable statistical finding in terms of patients' age and pregnancy rate in their spouses was found between the two groups ($P=0.6$). Moreover, the difference between patients' grade of varicocele and pregnancy rate in their spouses was not meaningful ($P=0.72$).
Conclusion: Varicocelectomy improves sperm parameters in infertile men from all age groups and it is recommended as a fertility therapy in all age groups.