
LAPAROSCOPIC TREATMENT OF UTERINE MYOMAS - LONG-TERM RESULTS AND PREGNANCY OUTCOME

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When uterine myomas are enucleated by pelviscopy (laparoscopy), it is more difficult to find all myomas and to close the hysterotomy than in laparotomy. It has been proposed that later pregnancies are more prone to complications, in particular uterus rupture, and that amelioration of symptoms is inferior. Since 1988, we have performed more than 95% of the myomectomies in our clinic by pelviscopy. In the years 1995-1999, we sent questionnaires to 1143 patients who had undergone an enucleation of uterine myomas at least 2 years previously.

Results: 65% answered the questionnaire. Metrorrhagia had decreased from 31 to 10 %, menorrhagia from 39 to 21 %, hypermenorrhagia from 37 to 21 %, dysmenorrhagia from 71 to 46%, dyspareunia from 31 to 11%, abdominal pressure from 49 to 22%. 32% of the patients had no complaints other than sterility before the operation. Of the others, 56% found their complaints completely gone after the operation, 35% registered an improvement, and only 9% observed no change at all. Of the patients with an improvement of their complaints, 94 % found that the improvement was permanent. During follow-up (four years on average), 1.8% of the patients had a second myoma enucleation, 3,1% a hysterectomy. 90% of the patients would opt for the same procedure retrospectively, 7% would not, the rest gave no answer to that question. Of the patients who desired to become pregnant, about half were successful: 93 children were born, once twins. There were 51 vaginal deliveries, 41 cesarean sections. The average birth weight was 3440 g. Only two singletons weighed less than 2500 g, none less than 2400 g. The twins weighed about 1300 g each. There were 22 spontaneous abortions (with 8 mature babies later), 3 therapeutic abortions, and two ectopic pregnancies (with one mature baby later). No uterus ruptures was reported. Pelviscopic myomectomy is an adequate alternative to laparotomy in most cases, and it may substitute hysterectomy in many cases.

SPERM MORPHOLOGY AS A RELIABLE METHOD OF MALE FERTILITY EVALUATION

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Objective: The aim of this study was to investigate accuracy of sperm morphology and correlation with IVF rate.

Methods: Accuracy of sperm morphology assessed according to Krugery's strict criteria in our modifications was evaluated by duplicate investigation of 50 samples. The data were analyzed by r_s and t_d . To evaluate stability of sperm morphology the data from 145 observations in 59 patients over 1,5 years were processed by ANOVA. Correlation of sperm morphology with the age of man was investigated by r_s ($n=242$). The effect of Percoll/swim-up semen separation on sperm morphology was assessed by t_d and by multiple regression analysis ($n=57$). To investigate the influence of sperm morphology on the IVF rate comparison of two patient groups with IVF rate less than 33% ($n=29$) or more than 66% ($n=178$) was performed by means of discriminant analysis and results of 160 IVF cycles were subjected to the regression analysis.

Results: It was shown that the results of sperm morphology analysis are accurate (for percent of normal spermatozoa (NS) $r_s=0,98$ $P<0,0001$; $t_d=1,8$ $P=0,1$; for slightly abnormal sperm (SAS)- $r_s=0,83$ $P<0,0001$; $t_d=1,2$ $P=0,2$), stable over time (for NS $F=0,18$ $P=0,9$; for SAS $F=1,0$ $P=0,4$) and not affected by the age of man. It was found that the percentage of NS and SAS significantly increase after the use of Percoll/swim-up preparation technique ($P<0,0001$). The percentage of NS after Percoll/swim-up separation directly correlated with NS in semen ($R^2=0,78$ $P<0,0001$) and does not depend on sperm motility, on total concentration and concentration of motile spermatozoa in the original sample. It was shown that IVF rate increased with the increase of NS ($R^2=0,04$ $P<0,01$) and NS+SAS ($R^2=0,05$ $P<0,008$). Among the combination of factors influenced on IVF rate the percent of NS was the most significant (for NS $F=15,5$; $P<0,0003$; for sperm motility $F=7,1$ $P=0,008$; for motility grade $F=7,0$ $P=0,008$; for SAS $F=3,9$ $P=0,046$).

Conclusion: Our modification of sperm morphology assessment is reliable method important in predicting IVF rate. man age (for NS $P=0,3$; for SAS $P=0,9$) To evaluate stability of sperm morphology its analysis was performed two time in 39 patients, three time - in 13 and four time in 7 patients with interval from 2 weeks to 1,5 years. The data were processed by ANOVA To investigate the influence of sperm morphology on the IVF rate the results of 160 IVF cycles with 6 and more oocytes retrieved were studied and the data were processed by the regression analysis. To reveal the combination of parameters influenced on in vitro fertilization comparison of two patients groups with IVF rate less than 33% ($n=29$) or more than 66% ($n=178$) was performed by the use of discriminant analysis.