

P-35 **Swim-down Method using Human Follicular Fluid in Patients with Excessive Non-motile Sperms**

**Moon JH¹, Jee BC¹, Ku SY², Suh CS^{1,2}, Kim SH², Choi YM²,
Kim JG², Moon SY²**

¹Department of Obstetrics and Gynecology, Seoul National University Bundang Hospital, Seongnam,

*²Department of Obstetrics and Gynecology, College of Medicine, Seoul National University,
Seoul, KOREA*

Background & Objectives: Excessive non-motile sperms may have detrimental effect on fertilization rate in IVF program. We tested the usefulness of swim-down technique with human follicular fluid (hFF) in patients with excessive non-motile sperms.

Method: Semen samples showing excessive non-motile fraction (>40%) were obtained from twelve patients undergoing routine andrologic assessment in Seoul National University Bundang Hospital. After dividing into two aliquots, each samples were processed by swim-down with 100% hFF or density gradient with SpermGrad, respectively. Sperm quality was assessed by computer-assisted semen analyzer (CASA). Vitality and percentage of rapid motile fraction was also examined.

Results: Although sperm quality assessed by CASA and percentage of rapid motile fraction was similar in two methods, percentage of viable sperms was higher after swim-down with 100% hFF.

Conclusions: Swim-down with hFF is an acceptable alternative method when compared with density gradient in patients with excessive non-motile sperms.

P-36 **Effects of Morindae Officinalis Radix on the Spermatogenesis and Antioxident Activities in the SD Rat**

Choi EM, Cho JH, Jang JB, Lee KB

Department of Oriental Medicine, Graduate School Kyung Hee University

Background & Objectives: This study was conducted to investigate the effects of Morindae officinalis Radix (巴戟) on the spermatogenesis and antioxidant activities in the SD rat.

Method: We choose the 2-month-old Sprague Dawley rats, and administered the extract powder of Morindae officinalis Radix once in a day for 28 days. The control rat were administered to normal water in the same way and duration. We observed changes of body weight, surgically isolated testis, epididymis, vascular gland and prostate gland at the before and after administration of Morindae officinalis Radix extracts in SD Rats. Also we compared to the testicular tissue especially seminiferous tubules between control and treated group by histochemical methods. In addition, we examined the total, normal and motile sperm in the cauda epididymis, and the activity of catalase and peroxidase in the isolated testis tissue.

Results: Here are no significantly differences between control and treatment groups in the weight of body, testis, vascular and prostate gland, but the weight of epididymis shows significant difference in the control group. The concentration of total sperm, the motility and normality of spermatozoa was significantly difference comparing with the control group, respectively. In the histological examination of testicular tissues, the tendency of incresement of angiogenesis between seminiferous tubules was observed. And the concentration of spermatogonia, primary and secondary spermatocyte and sperm were higher than that of control testicular tissues. Finally, the activity of catalase and peroxidase related inhibitory molecules of oxidation were slightly increased in the treatment group than those of control group.

Conclusions: This study shows that Morindae officinalis Radix has the benefical effect on the concentration, morphology and motility of sperm, the important factor in male fertility. We can suggest that Morindae officinalis Radix has an effect on the spermatogenesis in the SD rat.

P-37 보조생식술에서 Percoll과 SpermGrad를 이용한 정자처리 효용성의 비교

이선희¹ · 한상철¹ · 전진현¹ · 변혜경¹ · 서주태² · 궁미경³ · 박용석¹

¹성균관대학교 의과대학 삼성제일병원 생식생물학 및 불임연구실,

²비뇨기과, ³산부인과

Background & Objectives: 본 연구에서는 보조생식술의 정자 처리과정에서 사용되고 있는 SpermGrad와 Percoll의 효용성을 비교하였다.

Method: 체외수정에 사용될 19명의 정액을 두 부분으로 나누었다. 두 층 (90, 45%)의 SpermGrad와 여섯 층 (100, 90, 80, 70, 60, 50%)의 Percoll을 사용하여 운동성 있는 정자를 분리하였다. 정자분리 후, 컴퓨터 정액분석기를 이용하여 정자회수율, 운동성, 직진성을 측정하였다. 분리된 운동성 정자는 체외수정 (IVF 또는 ICSI)에 사용하였고, 두 방법 간의 수정율을 측정 비교하였다.

Results: SpermGrad를 사용하여 정자를 분리하였을 때 정자의 운동성은 $93.0 \pm 8.1\%$ 였으며, Percoll을 사용하였을 때는 $90.5 \pm 10.4\%$ 로 두 방법간 통계적으로 유의한 차이는 없었다. 정자의 직진성 역시 두 방법간 통계적으로 유의한 차이는 없었다. SpermGrad (2.89 ± 0.30), Percoll (2.88 ± 0.31). 정자회수율은 Percoll ($34.4 \pm 25.0\%$)을 사용하였을 때 비하여 SpermGrad ($56.5 \pm 65.6\%$)를 사용하였을 때 통계적으로 유의하게 높게 나타났다 ($p < 0.01$). 체외수정에서의 수정율은 Percoll (68.9 ± 20.5)을 사용하였을 때 비하여 SpermGrad ($76.9 \pm 13.8\%$)를 사용하였을 때 통계적으로 유의하게 높게 나타났다 ($p < 0.05$).

Conclusions: 보조생식술에서 양질의 정자를 분리하기 위해 사용되는 방법들 중에서 SpermGrad를 이용하여 높은 정자회수율과 수정율을 획득할 수 있다.