39%로 유의하게 증가되었다. 착상률과 임신률은 대조군에서 각각 11.1%와 33.3% GM-CSF 첨가군은 17.0%와 47.4%로서 GM-CSF 첨가군에서 유의하게 높았다 ($p<0.05$).

결 론: GM-CSF를 배양액에 첨가하여 체외배양을 시행할 경우 배아의 질이 향상되며 착상률과 임신률이 증가되었다. 이는 아마도 GM-CSF가 배아에서 착상 관련 물질의 합성과 분비를 촉진시키는데에 기인한다고 사료된다.

M-6 자궁내막증 환자의 IVF-ET시 저용량 Aspirin과 Corticosteroid 치료의 효용성

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목 적: 자궁내막증을 가진 불임여성에 있어 체외수정 및 배아이식술 (IVF-ET) 시행시 low dose aspirin과 corticosteroid 병합치료가 임신율에 미치는 영향을 알아보고자 본 연구를 시행하였다.

대상 및 방법: 아주대학교 산부인과 불임클리닉에 내원하여 자궁내막증으로 진단받은 45명의 불임환자를 대상으로 하였다. 대조군인 27명 환자의 38주기에서는 배란유도 과정에서 aspirin과 corticosteroid를 투여하지 않았고 실험군인 18명 환자의 23주기에서는 생리주기 3일째부터 저용량 aspirin (80 mg)과 corticosteroid (prednisone, 15 mg)를 경구투여 하였다. 양군간의 임상양상, 수정율, 착상율 및 임신율을 비교, 분석을 시행하였다.

결 과: 대조군과 실험군간의 임상양상 (평균 나이, 산과력, LH, FSH, estradiol, progesterone) 및 수정율, 양질 배아율은 차이를 보이지 않았다. 그러나 실험군은 대조군에 비하여 착상율에 유의하게 향상된 결과를 나타내었다 (29.0% vs.11.3%, p=0.019). hCG 양성율 (60.9% vs. 41.7%), 태낭 확인율 (56.5% vs. 33.3%), 20주 이상 임신지속율 (43.6% vs. 27.8%)도 증가된 양상을 보여주고 있었다.

결 론: 자궁내막증을 가진 불임여성에 있어 IVF-ET 시행시 low dose aspirin과 corticosteroid 병합치료는 착상율과 임신율을 향상시켰다. 이러한 결과는 자궁내막증 환자에서 자가 항체의 형성으로 인한 착상의 실패를 유도한다는 가설을 뒷받침하는 결과로써 향후 자궁내막증과 착상 과정의 면역학적 연관성을 규명하는 연구가 필요할 것으로 사료된다.

M-7 Use of Vaginal Sildenafil (Viagra) and Estradiol Valerate in Patients with Thin Endometrium Undergoing IVF

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Objective: To evaluate the efficacy of Sildenafil and Estradiol valerate in patients with thin endometrium.

Methods: From Jan 1999 to December 2000, 104 cycles with thin endometrium (less than 7 mm) were divided into three groups undergoing IVF. Group 1 (34 cycles) was without any medication supplement,

group 2 (35 cycles) was given estradiol valerate alone and group 3 (35 cycles) was given estradiol valerate with sildenafil. Estradiol valerate 6~8 mg per day was orally taken from day 3 for 7 days and Vigra 50 mg was vaginally inserted from day 3 to day of HCG injection. Endomerial thickness and pregnancy rate was checked in 3 groups seperately.

Results: Endometrial thickness increase (more than 7 mm) was marked in group 2 (71%) and group 3 (74%). Pregnancy rate was also much increased after supplementation (6%, 17%, 20% in group 1, 2 and 3). There were no marked differences between group 2and 3 in endometrial thickness and pregnancy rate.

Conclusion: The efficacy of Estradiol valerate to improve the endomeriumin in poor thin endometrium is quite effective. Although more evaluations are needed, Vigra insertion additionally seems to help the endometrial receptivity in patients with poor endometrium undergoing IVF.

M-8 Gonadotropin Regulation of Pituitary Adenylate Cyclase-Activating Polypeptide (PACAP) and PACAP Receptor mRNA Levels in the Human Ovary

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Pituitary adenylate cyclase-activating polypeptide (PACAP), a neuropeptide isolated from ovine hypothalamus, exists in two amidated forms, PACAP-38 and PACAP-27. The biological effects of PACAP are mediated through PACAP binding to G protein-coupled seven transmenbrane PACAP receptor. The expression of PACAP and PACAP receptor has been found in the rat ovary, suggesting the role of PACAP as a local ovarian regulator during the ovulatory process. In the human ovary, the existence of PACAP system has not been investigated. The present study was therefore examined the hormonal regulation of PACAP and PACAP receptor mRNA levels in the human ovary. Localization of PACAP protein was observed by immunohistochemical study in follicles obtained from benign uterine disease patients undergoing total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAH-BSO). The major cell types expressing PACAP protein were blood vessels surrounding granulosa cells, surface epithelium and muscle cells. Gonadotropin regulation of PACAP and PACAP receptor gene expression was examined in cultured human luteinized granulosa cells collected from patients undergoing in vitro fertilization (IVF) by competitive RT-PCR method. Futhermore, the effect of PACAP on progesterone production was examined in cultured human luteinized granulosa cells by radioimmunoassay. In human luteinized granulosa cells cultured in serum-free medium, PACAP transcript was transiently induced by LH, reaching maximum levels 12 h after stimulation. Stimulation of PACAP mRNA levels by LH exhibited a dose dependency. Treatment of human luteinized granulosa cells with LH also resulted in a transient induction of PACAP receptor gene expression, reaching a peak at 24 h after treatment. Addition of PACAP-38 as well as LH in culture of human luteinized granulosa cells stimulated progesterone production during 48 h culture, but not 24 h culture. Taken together,