The following full text is a publisher's version.

For additional information about this publication click this link.
http://hdl.handle.net/2066/21562

Please be advised that this information was generated on 2019-08-31 and may be subject to change.
ABSTRACTS FROM IXTH WORLD CONGRESS ON IVF AND ALTERNATE ASSISTED REPRODUCTION

PP-101
Severe ovarian hyperstimulation despite prophylactic albumin administration at the time of oocyte retrieval in a cycle of controlled ovarian hyperstimulation.

T. Mikhaylo, A.B. Copperman, L. Crainfield, B. Brener, M. Davies, M. Bartliss
Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology, Mount Sinai Medical Center, New York, NY

Objective: To report the occurrence of two cases of severe ovarian hyperstimulation (OHSS) despite the administration of 30 grams intravenous albumin at the time of oocyte retrieval. Two previous reports involving 12 patients did not describe a single case of OHSS in patients receiving prophylactic intravenous albumin. We describe the experience at one institution where two patients were hospitalized with severe OHSS despite receiving prophylactic albumin therapy.

Design: Twelve consecutive patients undergoing a cycle of controlled ovarian hyperstimulation for IVF with peak estradiol greater than 4500 pg/ml received 30 grams intravenous albumin (200 ml of 2.5% albumin solution) at the time of oocyte retrieval. Two patients developed OHSS despite prophylactic albumin administration.

Setting: The Division of Reproductive Endocrinology at the Mt. Sinai Medical Center, New York.

Interventions: 30 grams intravenous albumin was administered over 30 minutes at the time of oocyte retrieval.

Main outcome measures: Incidence of OHSS and severe OHSS defined as: (a) measurable ascites, pleural effusion, and generalized edema and/or (b) at least a 2-fold increase in serum estradiol level over the previous day.

Results: Two patients developed severe OHSS, requiring hospitalization, despite administration of intravenous albumin. The peak estradiol of the two patients were 4993 and 7180 pg/ml. Both patients evidenced a shortness of breath, pleural effusion, ovarian enlargement, ascites, and generalized edema. The effect on the replacement of albumin in the IVF setting and the development of the OHSS syndrome during controlled ovarian hyperstimulation in IVF is being reported.

Conclusions: Administration of albumin at the time of oocyte retrieval in patients undergoing controlled ovarian hyperstimulation for IVF, where evidence of OHSS is present, is ineffective in preventing this complication. It is important to report negative experiences as well as positive outcomes to evaluate the use of albumin as a prophylactic agent. The true efficacy of this agent needs to be evaluated in a prospective randomized fashion.

PP-102
LOW DOSES OF HUMAN MENOPAUSAL CONDOMATROPIN WITH CLOMIPHENE CITRATE IN IVF PROGRAM
P.V. Dakhno, V.Y. Syrenko, A.B. Darij, T.R. Tikhonirova
Institute of Reproductive Medicine, Kiev, Ukraine

We conducted 120 cycles of the controlled superovulation (CSO) of 106 women selected for IVF program. The mean age of women was 35.5 years. The average duration of infertility was 7.1 years. 35% of women had a primary infertility and 45% had a secondary infertility. The total fecundity was the main reason of IVF treatment in 49.5% of patients. CSO was with combination of clomiphene citrate (100 mg/day from the 2-3 day of cycle until 5 days) with hMG (Personal). Serum follicle count of the two patients were 20 mm and the endometrial thickness was 9 mm, hCG was administered over 30 minutes at the time of oocyte retrieval. Two patients developed OHSS despite prophylactic albumin administration.

Setting: The Division of Reproductive Endocrinology at the Mt. Sinai Medical Center, New York.

Interventions: 30 grams intravenous albumin was administered over 30 minutes at the time of oocyte retrieval.

Main outcome measures: Outcome measures included the accumulation of follicular fluid such as ascites, pleural effusion, and generalised oedema. The other outcome variables included degree of homeoconcentration, renal insufficiency, and thromboembolic complications.

Results: Two patients developed severe OHSS, requiring hospitalization, despite administration of intravenous albumin. The peak estradiol of the two patients were 4993 and 7180 pg/ml. Both patients evidenced a shortness of breath, pleural effusion, ovarian enlargement, ascites, and generalized edema. This is the first report in our knowledge, where administration of prophylactic albumin has failed to prevent severe OHSS. It is important to report negative experiences as well as positive outcomes to evaluate the use of albumin as a prophylactic agent. The true efficacy of this agent needs to be evaluated in a prospective randomized fashion.

Conclusion: Due to the small sample size, the differences were not statistically significant. However, the results suggest that Puregon is at least as potent as hMG.

PP-103
A COMPARISON OF RECOMBINANT HUMAN FSH (PUREGON) AND HMG IN IVF CYCLES
JUM Duikers, JMG Hollanders, CJCM Hamilton, WPN Willemsen, CMS Thomas, HJ Oost, HUT Coelingh Bennink
University Hospital Nijmegen, NV Organon, Oss; Netherlands

The effect of intramuscular (IM) recombinant human FSH (Puregon) administration on follicular development and hormonal profiles in IVF cycles was investigated in comparison with hMG treatment in a randomized study, using a fixed dosing scheme. Thirteen IVF patients fulfilling strict selection criteria were included. Seven patients were treated with hMG and six patients with Puregon, in both groups in combination with GnRH-agonist (buserelin) treatment. 150 IU hMG or Puregon were injected once daily. During the stimulation phase, daily blood samples were taken to determine FSH, LH, oestradiol (E2) and progesterone concentrations, and vaginal ultrasonography was performed at least every other day. When the mean diameter of the largest follicle was 20 mm and the endometrial thickness was 9 mm, hCG was administered. The luteal phase was suppleted by progesterone.

Results: Median number of follicles, FSH and E2 levels at the day of hCG administration and number of retrieved oocytes are listed in the table.

<table>
<thead>
<tr>
<th>hMG</th>
<th>Puregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>N foll &gt;10 mm</td>
<td>12</td>
</tr>
<tr>
<td>N foll &gt;15 mm</td>
<td>8</td>
</tr>
<tr>
<td>FSH IU/L</td>
<td>6.8</td>
</tr>
<tr>
<td>E2 (pmol/L)</td>
<td>6100</td>
</tr>
<tr>
<td>N oocytes</td>
<td>7</td>
</tr>
</tbody>
</table>

Conclusion: Due to the small sample size, the differences were not statistically significant. However, the results suggest that Puregon is at least as potent as hMG.

PP-104
DOES INTENSIVE PROPHYLAXIS OF SEVERE OHSS AFFECT THE PREGNANCY RATE OF IN VITRO FERTILIZATION AND EMBRYO TRANSFER?
J. Fukuda, H. Kodama, H. Karube, Y. Shimizu, T. Tanaka, Dept. of Obstetrics, Akita University School of Medicine, Akita, Japan.

Ovarian hyperstimulation syndrome (OHSS) is a severe iatrogenic complication of ovulation inductions in otherwise healthy young women. The aim of this study was to evaluate whether intensive prevention of this complication affected the pregnancy rate of in vitro fertilization and embryo transfer (IVF-ET). In order to reduce the incidence of this complication, we introduced several prophylactic strategies since October 1992. These strategies included (a) individual adjustment of a daily dose of hMG to young patients, (b) one day earlier injection of hCG when a large number of growing follicles was observed, (c) cancellation of hCG administration in the patients with a remarkably large number of growing follicles, (d) use of pure FSH, instead of hMG, in patients with polycystic ovarian syndrome. The results of IVF-ET before and after the introduction of these strategies were compared (864 cycles during the period from October 1988 to September 1992, Phase I, versus 649 cycles from October 1992 to July 1994, Phase II). Incidence of severe OHSS was remarkably decreased from Phase I to Phase II (3.4 versus 0.6%, p<0.001). Although the number of recovered oocytes in the Phase II was significantly lower than in the Phase I (6.7±4.6 versus 7.6±5.3, p<0.001, mean ± SD ), pregnancy rates did not differ between the two phases (23.3 versus 24.0%). We concluded that intensive prophylaxis of OHSS did not affect pregnancy rate of IVF-ET.

Journal of Assisted Reproduction and Genetics, Vol. 12, No. 3, 1995 (Supplement)