Prevention of ovarian hyperstimulation syndrome.

Sir,

I mentioned in the Evidence-based corner of the MEFSJ under the title of “Prevention of ovarian hyperstimulation syndrome” modified summaries of all reviews included in the electronic data of the Cochrane library dealing with the prevention of OHSS (1). These included; Coasting (withholding gonadotrophins) for preventing ovarian hyperstimulation syndrome, intravenous albumin for preventing severe ovarian hyperstimulation syndrome and embryo freezing for preventing ovarian hyperstimulation syndrome.

The Cochrane review of five randomized controlled trials of albumin infusion versus placebo/no treatment for women at high risk of developing severe OHSS after COH demonstrated significant reduction in severe ovarian hyperstimulation syndrome on administration of human albumin (2).

I would like to quote a summary of a large prospective randomized controlled trial that was reported by Bellver et. al. in November, 2003 in which they compared albumin infusion with no treatment in patients at high risk of moderate to severe OHSS after COH, in order to ascertain the actual preventive role of intravenous albumin (3).

At the Instituto Valenciano de Infertilidad (Valencia, Spain) women undergoing IVF with >20 retrieved oocytes were included. A total of 988 patients was initially enrolled. Immediately after oocyte retrieval, patients were allocated to two groups based on a computer randomization: the first group received 40 g human albumin; the second group received no treatment. Subjects were weighed and a blood analysis performed immediately after oocyte retrieval and again 7 days later. Women were monitored on an outpatient basis until menstruation, or until fetal heart activity was detected. Twelve subjects were excluded due to follow-up loss, leaving 976 women (377 of them oocyte donors), with 488 in each group.

This study showed no difference between the two groups in terms of patient characteristics and outcome. Moderate-severe and severe only OHSS rates were similar. The incidence of haemoconcentration and liver and renal dysfunction at 7 days after oocyte retrieval was similar in the two groups. In women who developed moderate/severe (n = 66) or only severe (n = 46) OHSS, there was no difference based on prior albumin administration between blood parameters or body weight on the day of oocyte retrieval, 7 days later, and even when comparing variation between both measurements.

Moreover, the number of patients with paracentesis, hospital admissions, complications and days of OHSS until resolution did not differ.

Bellver et. al concluded that intravenous albumin infusion on the day of oocyte retrieval is not a useful means of preventing the development of moderate-severe OHSS.

References:

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