A prospective randomized study of electro-acupuncture versus alfentanil as anaesthesia during oocyte aspiration in in-vitro fertilization

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Abstract

The aim of the present study was to evaluate the anaesthetic effect during oocyte aspiration of a paracervical block (PCB) in combination with either electro-acupuncture (EA) or intravenous alfentanil. In all, 150 women undergoing in-vitro fertilization (IVF) and embryo transfer were randomized to receive either EA plus PCB or alfentanil plus PCB. Visual analogue scales (VAS) were used to evaluate subjective experiences during oocyte aspiration, and IVF outcome parameters were recorded. No differences in pain directly related to oocyte aspiration, adequacy of anaesthesia during oocyte aspiration, abdominal pain, or degree of nausea were found between the two groups in the VAS ratings. Before oocyte aspiration, the level of stress was significantly higher in the EA group than in the alfentanil group (P < 0.05), and the EA group experienced discomfort for a significantly longer period during oocyte aspiration (P < 0.01). Compared with the alfentanil group, the EA group had a significantly higher implantation rate (P < 0.05), pregnancy rate (P < 0.05), and take home baby rate (P < 0.05) per embryo transfer. In conclusion, EA has been shown to be as good an anaesthetic method as alfentanil during oocyte aspiration, and we suggest that EA may be a good alternative to conventional anaesthesia during oocyte aspiration.

Key words
alfentanil anaesthesia electro-acupuncture implantation rate oocyte aspiration