The effectiveness of IVF in unexplained infertility: a systematic Cochrane review

Zabeena Pandian1,3, Siladitya Bhattacharya1, Dimitrios Nikolaou1, Luke Vale2 and Allan Templeton1

1Department of Obstetrics & Gynaecology, Aberdeen Maternity Hospital and 2Health Services Research Unit, University of Aberdeen, Aberdeen AB25 2ZD, UK
3To whom correspondence should be addressed. E-mail: z.pandian@abdn.ac.uk

This paper is based on a Cochrane review published in The Cochrane Library, issue 2, 2002 (see www.CochraneLibrary.net for information) with permission from The Cochrane Collaboration and Update Software. Cochrane reviews are regularly updated as new evidence emerges and in response to comments and criticisms, and The Cochrane Library should be consulted for the most recent version of the review.

BACKGROUND: IVF is an accepted treatment for unexplained infertility. The objective of this review was to determine whether, for unexplained infertility, IVF improves the probability of live birth compared with: (i) expectant management; (ii) clomiphene citrate (CC); (iii) intrauterine insemination (IUI); (iv) IUI with controlled ovarian stimulation; and (v) gamete intra-Fallopian transfer (GIFT). METHODS: This was based on a Cochrane review. Randomized controlled trials (RCTs) which compared the effectiveness of IVF with expectant management, CC, IUI with or without controlled ovarian stimulation and GIFT were included. Patients included couples with unexplained infertility. Live birth rate per woman/couple was the main outcome measure. RESULTS: Nine RCT were identified. Five RCTs were included in the final meta-analysis. There were no comparative data for CC and live birth rates for expectant management or GIFT. There was no significant difference in clinical pregnancy rates between IVF and expectant management. There was no evidence of a difference in live birth rates between IVF and IUI either without (OR 1.96, 95% CI 0.88 to 4.36) or with (OR 1.15, 95% CI 0.55 to 2.42) ovarian stimulation. Clinical pregnancy rates with IVF were significantly higher compared with GIFT (OR 2.14, 95% CI 1.08 to 4.22) as were the multiple pregnancy rates (OR 6.25, 95% CI 1.70 to 23.00). Clinical heterogeneity was present among the studies. There was no evidence of statistical heterogeneity. CONCLUSIONS: The effectiveness of IVF in unexplained infertility remains unproven. Larger trials with adequate power are warranted.

Key words: clomiphene citrate/expectant/gamete intra-Fallopian transfer/intrauterine insemination/unexplained infertility