

Bed rest following embryo transfer might negatively affect the outcome of IVF/ICSI

Laurentiu Craciunas, Nikolaos Tsampras

Background

- Embryo transfer (ET) is a critical and delicate step in assisted reproduction and many interventions have been attempted in order to increase the implantation rate following ET.
- Depending on the time relation with the ET, these can be divided in three main groups: pre ET (dummy embryo transfer, cervical and endometrial preparation), at the time of ET (catheter choice, site of embryo placement, ultrasound guidance) and post ET (fibrin sealant, mechanical closure of the cervix, bed rest).
- Bed rest following ET has been recommended in the early days of IVF as a way to prevent embryo expulsion by gravity.
- It has also been suggested that bed rest might reduce the expulsion rate by decreasing the uterine activity following ET.

Objective

- To appraise critically the published randomised controlled trials (RCTs) reporting the effect of bed rest following ET.

Methods

- Comprehensive literature search of Medline (via PubMed web interface), EMBASE (via OVID), Cochrane Central Register of Controlled Trials (via Cochrane web interface), ClinicalTrials.gov (via U.S. National Institutes of Health web interface) and Google Scholar (via scholar.google.com/).
- RCTs (irrespective of study design and method of randomisation) indexed in the searched databases from inception to May 2014, reporting on the effect of bed rest following ET, with no restrictions on language, blinding, sample size or country of origin.
- RevMan 5.2.11, provided by the Cochrane Collaboration, was used for statistical analysis.

Conclusion

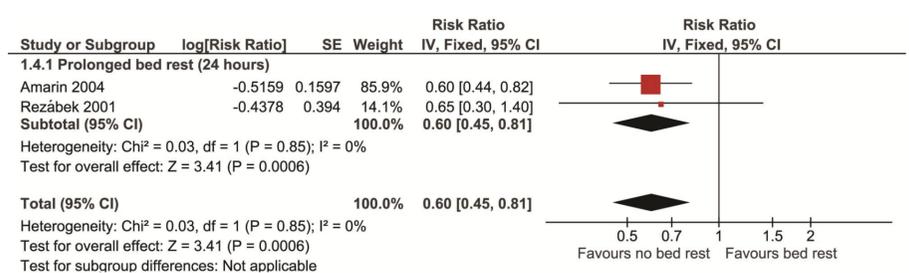
- The findings of this systematic review and meta-analysis suggest that bed rest following ET is not beneficial in terms of clinical pregnancy and live birth rates.
- Furthermore, prolonged bed rest might reduce the implantation rate.

Results

- 4 RCTs evaluating 757 women allocated to experimental group (bed rest) or control group (no bed rest) for reporting the effect of bed rest following ET were included in the systematic review and meta-analysis.

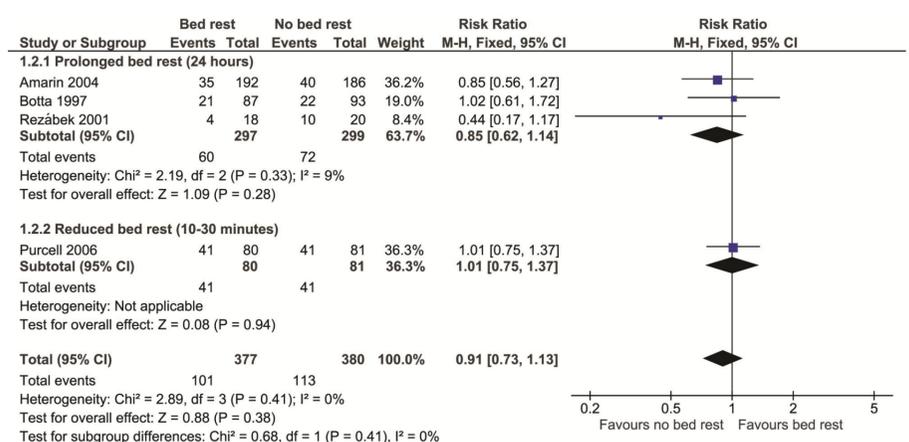
• Implantation rate per embryo transferred

Implantation rate was higher in the control group compared to the experimental group (RR, 0.60; 95% CI, 0.45 to 0.81).



• Clinical pregnancy rate per transfer

Similar clinical pregnancy rate in the experimental group (RR, 0.91; 95% CI, 0.73 to 1.13) compared to the control group.



• Live birth rate

One RCT reported on this outcome and found no difference between the groups.