Lymphocyte immunotherapy (LIT) after recurrent IVF implantation failure: Results of a prospective observational trial

Context:
Immune system and reproduction.
LIT is used to optimise embryo implantation in selected couples suffering from recurrent IVF or ICSI failure.

Objective:
The gold standard of randomized prospective controlled well-powered trials is difficult to initiate due to the emotional strain of patients suffering from infertility.

Methods and patients:
Prospective observational trial including 765 patients who had consecutively been referred from German practitioners to a tertiary immunological department after at least three oocyte retrievals followed by unsuccessful embryo transfers. A questionnaire was answered by 393 women (51%) in 2012. Plausibility was checked by comparison with a preceding study (769 women, feedback 93%) and the data of the German IVF registry (DIR) 2009.

Interventions:
All couples had received LIT.

Main outcome measures:
Pregnancy (PR) and conception rates (CR) per transfer achieved within 24 months

Results:
Within 6 months after LIT, all women below 37 years showed rates which were by 25% higher than in the second year after LIT (p<0.03). From the 4th cycle on, PR was 37.7% per transfer in women until 34 years, and 26.5% in women between 35 and 39 years. The PR per transfer exceeded the DIR control by 30% in the younger and by 14% in the elder group of women.
Conclusions:
The data proposes that women suffering from recurrent implantation failure may benefit from LIT in an age-dependant manner. Statistical bias occurring by inherent patient selection cannot be excluded. On the other hand, the decline of PR and CR within about one year after LIT cannot be explained by aging alone. Moreover, the statistically most successful first and 2nd retrievals are overrepresented in the DIR evaluation, but their figures still are surmounted by couples treated with LIT.