

Efficacy and Safety of PRP in Patients with Recurrent Implantation Failure Undergoing ART- A Systematic Review & Meta-analysis

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Abstract

Background: RIF is a frustrating condition, both for the clinician and the patient. Clinical trials have shown that PRP might improve live birth and clinical pregnancy rate in women with RIF undergoing IVF. Materials, setting, and methods: An electronic database search of PubMed, EMBASE, SCOPUS, and Cochrane Central was performed for articles published in the English language by two independent reviewers using predefined eligibility criteria Women of reproductive age group diagnosed with RIF and are planned for IVF cycle with fresh or frozen embryos were included. Included studies were clinical trials comparing PRPa against routine care or used as a standalone therapy in patients with RIF. Bias was assessed using the Cochrane Collaboration Network Risk of Bias Tool version 2. Quality of evidence was determined and a summary of findings table was prepared for individual outcomes using GRADEpro software. Main results and the role of chance: We identified 1146 records, of which, we screened 531 records and ten studies were included for final review. For live birth rate, we have little confidence that administration of PRP had any significant effect on live birth rate (RR 3.01, 95% CI 1.13 to 7.99, I² = 80%, very low quality of evidence). Similarly, the quality of evidence was low for clinical pregnancy rate, we are uncertain that the administration of PRP had any significant effect on clinical pregnancy rate (RR 2.09, 95% CI 1.71 to 2.55, I² = 25%). The protocol was registered on PROSPERO (registration number CRD42021292209).

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