



Sample size		Intervention(s)	Control	Time of PRP infusion
Control	Case			
150	138	Intrauterine infusion of 1 ml PRP	Underwent ET without intrauterine infusion of PRP	48–72 hours before ET
60	60	Intrauterine infusion of 0.5 ml PRP	Underwent ET without intrauterine infusion of PRP	48 hours before ET
196	197	Intrauterine infusion of 0.5 ml PRP	Underwent ET without intrauterine infusion of PRP	48 hours before ET
39	38	Intrauterine infusion of 1.5 ml PRP	Underwent ET without intrauterine infusion of PRP	48 hours before ET
43	55	Intrauterine infusion of 0.5 ml PRP	Underwent ET without intrauterine infusion of PRP	48 hours before ET
43	42	Intrauterine infusion of 1 ml PRP	Underwent ET without intrauterine infusion of PRP	2 days before ET
154	109	treatment with PRP intrauterine PRP(1 ml)	Underwent ET without intrauterine infusion of PRP	Intrauterine PRP during the index frozen embryo transfer preparation cycle
48	49	Intrauterine infusion of 0.5 ml PRP	Underwent ET without intrauterine infusion of PRP	48 hours before ET
45	40	Intrauterine infusion of 0.5 ml PRP	Underwent ET without intrauterine infusion of PRP	48 hours before ET
56	67	Intrauterine infusion of 1 ml lympho-PRP	A single administration of 300ug recombinant GCSF and two hours before ET	2 days before ET

Population	Exclusion criteria
Patients aged 23 to 40 years who had three or more consecutive failed embryo implantations with good-quality embryos(at least 6 cleavage-stage embryos or three blastocysts)	Abnormal karyotype from either partner, uterine defects evidence, ultrasonographic evidence of hydrosalpinx, infections, endocrine problems, coagulation defects or autoimmune defects
Patients aged 23 to 40 years who failed to conceive after three or more ET with high-quality embryos and had at least one frozen good-quality blastocyst-stage embryo	Chromosomal and genetic disorders, hematological and immunological disorders, hormonal disorders, uterine abnormality(congenital or acquired), body mass index above 30 kg/m <sup>2</sup> , severe endometriosis, and patients with cancellation history of the previous ET due to a thin endometrium(≤7 mm) in hormone
Patients aged 18 to 38 years who failed to achieve pregnancy after three or more embryo transfers with high-quality embryos	Immunological abnormalities, inflammatory conditions, hormonal or anatomical disorders, PCOS, OHSS, endometriosis, presence of space-occupying lesions, history of miscarriage or ectopic pregnancy, myomas, polyps, adhesions, previous pelvic surgeries, failed fertilization, and less than two embryos available for transfer; participants with a severe male factor of their spouses and chromosomal abnormalities
Patients below 41 years with at least two IVF failures	Chromosomal, genetic, and uterine abnormalities, hematological or immunological disorders, hormonal disorders, and embryos that arise from such maternal and paternal abnormalities
Patients between 20–40 years who failed to be pregnant after three or more good quality embryo transfer of embryos with good quality	Hematologic disorders, immunologic disorders, hormonal disorders, chromosomal and genetic anomalies, and renal failure
Patients below 35 years who failed to transfer at least four good-quality embryos in at least three fresh or frozen cycles	Age ≥35 years, endometrial thickness <7 mm, basal follicle-stimulating hormone levels >10 mIU/mL, severe male factors such as azoospermia, intrauterine disorders, thrombophilia, thyroid dysfunction, positive antiphospholipid antibodies or chromosomal abnormality in a couple
Patients aged below 40 years with a history of RIF(failed to achieve a clinical pregnancy after ≥3 ET cycles with at least a total of four good quality cleavage/blastocyst-stage embryos derived from autologous gametes transferred in endometrium of ≥8mm thickness) undergoing frozen embryo transfer	BMI≥30 kg/m <sup>2</sup> , congenital and untreated acquired uterine abnormalities, untreated hydrosalpinges, poor ovarian responder as per the Bologna criteria, thrombophilia, or uncontrolled endocrine or hematologic dysfunction; those undergoing preimplantation genetic testing cycles; and those who had thin endometrium(<8 mm) in the index frozen embryo transfer cycle, severe male factor infertility, difficult ET, only poor-quality embryos available, and couple with genetic and chromosomal abnormalities
Patients aged below 40 years with a history of RIF who failed to conceive after 3 or more embryo transfers with high-quality embryos and candidates for frozen embryo transfer	Uterine abnormalities, hormonal disorders, immunological and haematological disorders, azoospermia, testicular sperm extraction or aspiration, anatomical disorders of the male genital tract, varicocele and chromosomal abnormalities in the couples
Patients aged below 40 years with a history of a history of two to three IVF failures	Any uterine anomalies, an underlying disease, taking any specific medication, no proper frozen embryo transfer for transfer on the day of ET, insufficient endometrial thickness for ET, and reluctance toward participation
Patients aged 18-40 years with a history of more than 2 repeated failed ET	Not mentioned

Table S1. Characteristics of the included studies

Study(Author name & Publication)		Country	Study design
Yangying Xu	2022	China	Cohort
Leili Safdarian	2022	Iran	RCT
Leila Nazari	2022	Iran	RCT
Mahvash Zargar	2021	Iran	RCT
Marzieh Zamaniyan	2020	Iran	RCT
Ensieh S. Tehraninejad	2020	Iran	Cohort
Majiyd Abdul Noushin	2021	India	Cohort
Leila Nazari	2019	Iran	RCT
Sara Ershadi	2022	Iran	RCT
Marzieh Mehrafza	2019	Iran	Cohort