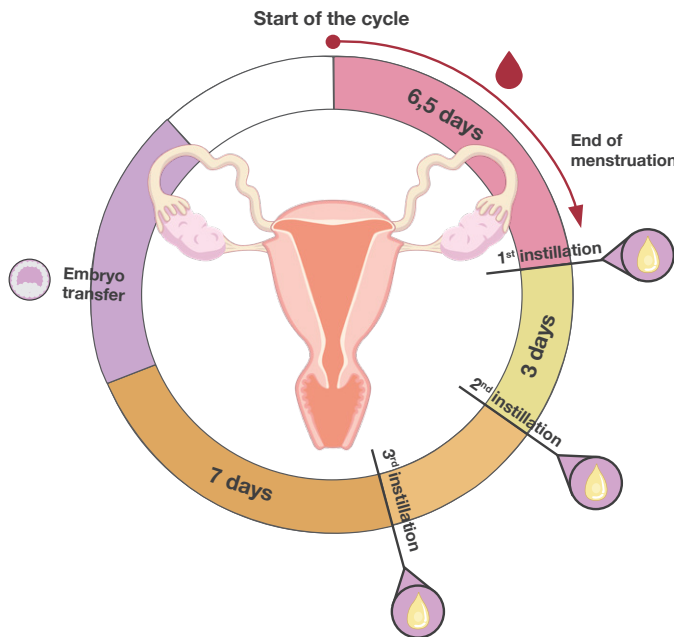
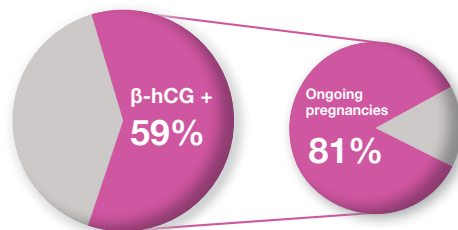


## POTENTIAL OF PLASMA RICH IN GROWTH FACTORS (PRGF) TO ENHANCE THE EFFICACY OF ASSISTED REPRODUCTIVE TECHNIQUES IN REFRACTORY CASES



Administering **leucocyte and fibrin free PRGF** as **3 consecutive intrauterine instillations** increases the probability of achieving pregnancy if **1<sup>st</sup> PRGF infusion** is made on **7<sup>th</sup> day** of the menstrual cycle and **2<sup>nd</sup> PRGF infusion** is made on **10<sup>th</sup> day** of the menstrual cycle.

The percentage of **biochemical pregnancies** was **59%** in patients with implantation failures treated with ENDORET® technology and **81%** of which were **ongoing pregnancies**.



# ABSTRACT

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## Potential of Plasma Rich in Growth Factors (PRGF–Endoret) to Enhance the Efficacy of Assisted Reproductive Techniques in Refractory Cases

Jon Ander Agirregoikoa, Jose Luis de Pablo, Maria de la Fuente, Eduardo Anitua

### AIM

Nowadays, infertility problems affect a high percentage of couples. This study aimed to evaluate the effect of plasma rich in growth factors (PRGF–Endoret, hereafter PRGF) as a promising coadjuvant therapy in assisted reproductive techniques and its possible role in implantation and pregnancy rates. This retrospective study included 36 PRGF cycles in 27 women with one of the following reproductive disorders: recurrent implantation failure (n = 16), repeated abortion (n = 8), and thin endometrium (n = 3).

### METHODS

PRGF was obtained from each patient and administered as three consecutive intrauterine instillations. The endometrial thickness was measured after each PRGF infusion and a good-quality embryo transfer was performed for every patient. Endometrial thickness, biochemical pregnancy, and miscarriage rate were the primary measured outcomes.

### RESULTS

PRGF increased the endometrial growth respecting the initial thickness in all cases. The biochemical pregnancy rate determined as positive beta-human chorionic gonadotropin ( $\beta$ -hCG) was 59%, considering the total number of patients; the ongoing pregnancy percentage was 48%. PRGF application day was relevant with a significant probability of achieving pregnancy ( $p < 0.01$ ) when the first PRGF infusion was carried out beyond 6.5 days after the first day of the woman's cycle and the second one beyond 9.5 days of the menstrual cycle.

### CONCLUSIONS

Intrauterine autologous PRGF infusion is a safe, easily accessible, and inexpensive therapy that could collaborate in fertility treatments by optimizing the endometrium for implantation and thus favoring the crosstalk between the embryo and the uterus improving the embryo-maternal dialogue.