

## **9<sup>th</sup> Yazd International Congress and Student Award on Reproductive Medicine with 4<sup>th</sup> Congress of Reproductive Genetics**

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### **Key Lectures**

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#### **K-1**

#### **Ovarian rejuvenation through platelet-rich autologous plasma**

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Platelet-rich plasma (PRP) is a novel method that has been successfully employed for a range of medical issues. PRP holds a high concentration of platelets found in plasma many types of protein molecules, cytokines, and growth factors. Therefore, it is considered as a reasonable method with beneficial effects on tissue regeneration, angiogenesis activation, inflammation control, and anabolism. PRP was also proposed as an acceptable and potentially successful approach for improving the fertility outcome in poor ovarian responders (PORs) as well as women with primary

ovarian insufficiency (POI). However, there is still insufficient clinical data on the application of PRP in the field of ovarian infertility. Preliminary studies revealed that in women with POI, intraovarian injection of autologous PRP might be an alternative experimental treatment option. Furthermore, it has been shown that PRP injection could be positively applied as an effective and safe approach in PORs before the IVF procedure to increase the clinical pregnancy and live birth rates. Our recently published clinical trial showed a 47% pregnancy among PORs in response to PRP injection; of those, 50% led to healthy live births. In addition, we found menstruation recovery among 22.2% of women with POI after the PRP injection. In the end, ovarian autologous PRP injection could be a chance for conception without donor eggs in poor responder patients, along with improving the life quality of women suffering from early menopause without synthetic hormonal treatment.