



## 9. MALE UROGENITAL INFLAMMATION STATUS SHOULD BE CONSIDERED IN INFERTILE COUPLES WITH RECURRENT PREGNANCY LOSS

**Author:** Valeanu Ornela; **Co-author:** Valeanu Ion

**Scientific advisor:** Arian Iurii, MD, Assistant Professor, Department of Surgical Urology and Nephrology, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

**Introduction.** Male urogenital infections are one of the causes that can lead to infertility in men. It is believed that nearly 15% of couples with RPL suffer from multiple infections in the urogenital tract. Recurrent pregnancy loss (RPL) is the loss of at least two consecutive pregnancies in the first 20 weeks of gestation. Numerous bacteria and viruses can result in male genital infection, which is considered to have a negative impact on sperm function and quality.

**Aim of study.** Comparative analysis of semen, hormones, and inflammatory/infectious parameters in men from couples with PRL vs. non-RPL.

**Methods and materials.** The retrospective study included 30 men from couples with RPL, mean age  $33.76 \pm 6.62$ , and 35 non-RPL, mean age  $32.11 \pm 7.48$ , as a control group. A comparative analysis of semen, hormones (FSH, LH, PRL, TT, E2), urogenital inflammation status, the presence of conditionally pathogenic infections, and specific flora in semen and urine was done. The data were analyzed using IBM SPSS Statistics 23.

**Results.** The mean values of semen parameters in both groups were within the normal range, but with higher numbers in the study group: sperm concentration:  $70.26 \pm 11.29$  vs  $53.54 \pm 13.45$ ; progressive motility:  $34.63 \pm 8.32$  vs  $33.22 \pm 10.65$ . Meares-Stamey 2 glasses test found no significant inflammation in both groups ( $8.37 \pm 9.51$  vs  $8.08 \pm 10.15$  for the first voided sample and  $8.55 \pm 12.32$  vs  $10.11 \pm 11.21$  for the second voided sample). Sexually transmitted infections that were more frequently found in both groups are *Ureaplasma* species (16.6% vs. 14.2%), *Gardnerella vaginalis* (13,3% vs. 8,5%) and *Mycoplasma* species (6,6% vs. 2,8%). The prevalence of infections within the study group was observed. Also, there is a significant difference between groups in the prevalence of non-specific infections: 10 (58.82%) vs. 3 (8.57%). The total testosterone value was lower in the study group compared with the control group:  $323.26 \pm 72.59$  vs  $379.25 \pm 45.69$ . FSH ( $4.22 \pm 3.21$  vs  $5.60 \pm 3.41$ ), LH ( $4.46 \pm 2.79$  vs  $4.13 \pm 4.28$ ), PRL ( $224.37 \pm 186.34$  vs  $244.69 \pm 201.17$ ), and E2 ( $31.95 \pm 18.02$  vs  $34.44 \pm 15.74$ ) were in the normal range limit.

**Conclusion.** Men from couples with RPL present more often with specific and non-specific infections of the urinary tract, with a prevalence of *Ureaplasma* species, *Gardnerella vaginalis*, and *Mycoplasma* species, most of the cases with multiple infections.