

## Supplemental Information

**Table 1.** The main sperm characteristics of the case-patient, Saratov city, 2012.

<b>Sperm indicator</b>	<b>Case-patient</b>	<b>WHO reference limit [1]</b>
Concentration of spermatozoa		
progressive	20%	>32%
non-progressive	27%	
immotile	53%	>50%
vitality	35%	>58%
Total volume	3 ml	≥ 1,5 ml
pH	7.8	≥7,2
Sperm concentration, spermatozoa per ml	$12 \times 10^6$	$15 \times 10^6$