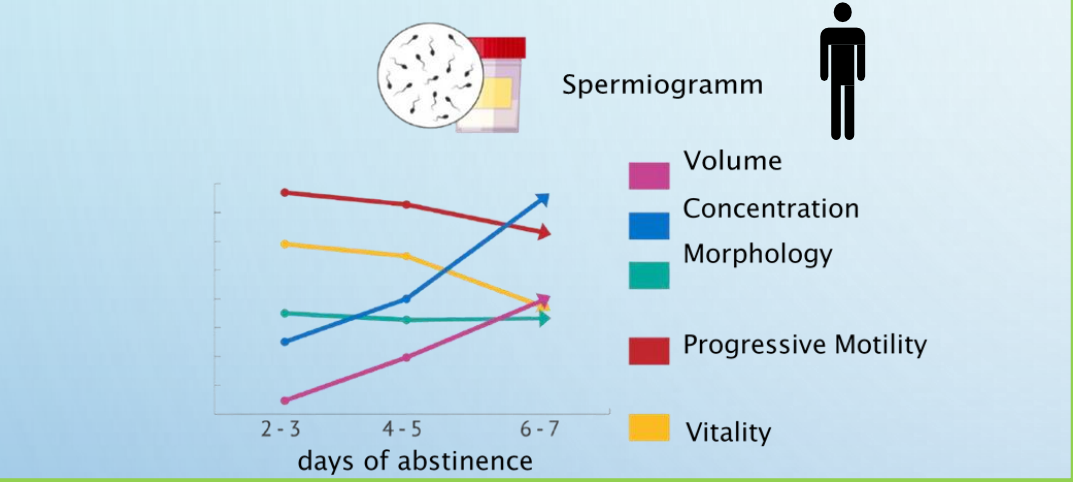


EVALUATION OF THE EFFECT OF THE PERIOD OF EJACULATORY ABSTINENCE ON SEMINAL FLUID PARAMETERS IN OLIGOASTHENOTERATOZOOSPERMIC MEN

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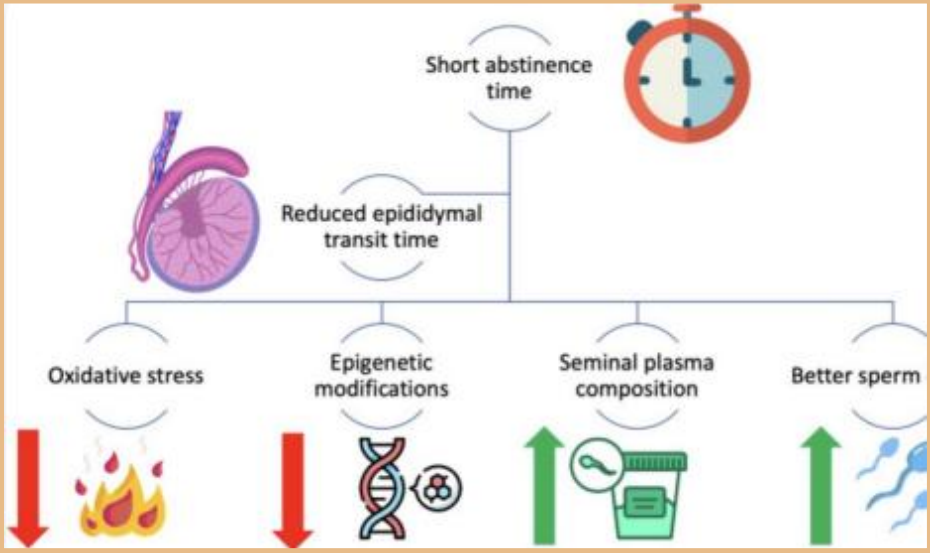
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The aim of this study is to investigate whether a short period of ejaculatory abstinence (12-24 hours) is able to determine an improvement in sperm motility compared to a longer period of abstinence (2-7 days)

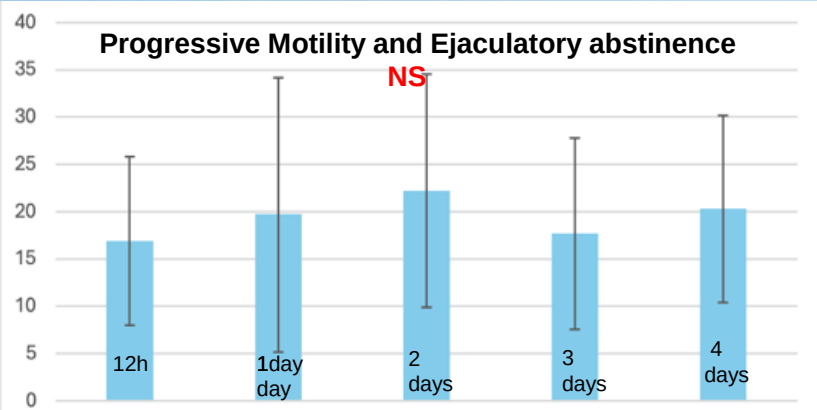


This study was approved by the Ethics Committee of the Marche (protocol CET 2025 43).

There is still no consensus on the optimal period of ejaculatory abstinence. The WHO guidelines recommends 2-7 days as the optimal range of abstinence, the European Society of Human Reproduction and Embryology (ESHRE) set a shorter range of 3-4 days. Recent studies have examined the effects of a shorter ejaculatory abstinence on semen quality and the results of assisted reproduction techniques (ART)



Population
241
OAT/OA



days of abstinence	average vitality [%]	Average Volume [mL]	Average Concentration [10 ⁶ /mL]	Average Conc spz totale [10 ⁶ x volume]	Average motility A+B [%]	Average Total motility A+B+C [%]	Average o Normal Forms [%]
0	46,2 ± 20,4 *	1,9 ± 1 *	14,5 ± 15,7 *	24,4 ± 19,8 *	16,9 ± 8,9	30,8 ± 10 *	2,3 ± 1
1	54,1 ± 21,3	2,6 ± 1,4	11,9 ± 12,5 *	28,3 ± 31,6	19,7 ± 14,5	34,7 ± 14,9	2,4 ± 1,5
2	69,5 ± 18,7 *	2,7 ± 1	19,6 ± 22,7	49,4 ± 69,3	22,2 ± 12,3	38,8 ± 12,5	4 ± 2,7
3	69,7 ± 15,2 *	2,5 ± 1,6	28,4 ± 25,9 *	59,7 ± 55,3 *	17,7 ± 10,1	36,5 ± 12,6	3,4 ± 2,5
4	77,6 ± 10 *	3,3 ± 1,8 *	24,1 ± 24,6 *	69,5 ± 66,3 *	20,3 ± 9,9	39,3 ± 12,2 *	3,7 ± 2,5
Totale	66,4 ± 19,3	2,7 ± 1,5	21,3 ± 22,8	50,7 ± 57	19,5 ± 11,5	36,7 ± 13	3,3 ± 2,3
P < 0,05	0,0001 (0 vs 2-3-4)	0,00025 (0 vs ≥4)	0,04 (0 vs ≥4) 0,037 (0 vs 3) 0,0016 (1 vs 4)	0,011 (0 vs 3) 0,007 (0 vs ≥4)	NS	0,01 (0 vs ≥4)	NS

Conclusions: According to our data, prolonged abstinence leads to a higher sperm concentration and an increase in volume in OAT/OA men. Our study seems to demonstrate that the percentage of progressively motile spermatozoa does not increase either with short ejaculatory periods, from 12 hours to 1 day of abstinence, or with prolonged abstinence up to 4 days. An abstinence period >4 days seems to have an impact on sperm DNA and ICSI outcome since prolonged abstinence could lead to a higher exposure of spermatozoa to reactive oxygen species (ROS) and lipid peroxidation due to the long permanence in the epididymis, with the possible consequence of a reduction in sperm motility and an increase in DNA fragmentation that would lead to a reduction in fertility

In the future, doctors could recommend personalized therapies to patients based on their ART treatment and evaluate the best period of abstinence, with the possibility of performing repeated ejaculations even at short intervals of time to improve sperm quality and progressive motility.

Test Agostino e Pearson, Student and Wilcoxon-Mann-Whitney.