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JOURNAL ARTICLE

Endocrinological, biophysical, and biochemical parameters of semen collected via masturbation versus sexual intercourse

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In clinical programs of assisted reproduction involving infertile males, it is essential to obtain semen of maximum quality. To evaluate ways of achieving this objective, and to assess the fertilizing capacity of the sperm, six semen samples were collected from each of 38 infertile men via masturbation. Six more samples were then collected from each man at sexual intercourse using a semen collection device (SCD). We confirmed that the volume of seminal plasma, total sperm count, sperm motility, and percentage of morphologically normal spermatozoa were significantly higher in samples collected at intercourse than masturbation, as reported previously. In addition, the markers of the secretory function of the prostate and the outcome of sperm function tests (hypoosmotic swelling test, acrosin assay, and sperm penetration assay) were significantly higher for the samples collected at intercourse. There were no significant differences in markers of the secretory function of the seminal vesicles and epididymis between the samples. The improved spermatozoal parameters in the samples collected at intercourse may reflect a higher prostatic secretory function at that time. There were no significant differences in the serum concentrations of gonadotropins, or in the serum or seminal plasma concentrations of testosterone, before or after masturbation or sexual intercourse. Therefore, the differences in prostatic secretory function and semen parameters may not be attributed to differences in hormonal levels. Semen collection during intercourse using an SCD appears to be the method of choice for selecting semen samples for artificial insemination.

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