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JOURNAL ARTICLE

Effects of psychological stress on human semen quality

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We investigated the relationship between psychological stress and sperm concentration, motility, and morphometry in a prospective study of 157 volunteers who were enrolled in a prepaid health plan. We measured psychological job stress and life-event stress by telephone interview. Sperm-kinematic and nuclear-morphometric variables were measured using computer-assisted image analyses. Sperm concentration, percent motility, and semen volume were determined by objective visual methods. We performed multiple linear regression for each semen variable to examine its relationship to stress, controlling for potential confounders. Stress at work and total number of life events were not related to differences in semen quality. However, the recent death of a close family member was associated with a reduction in straight-line velocity ($P = 0.002$) and percent of progressively motile sperm ($P = 0.02$); it was also marginally associated with an increase in the fraction of sperm with larger and more tapered nuclei. These findings suggest that the fecundity of men experiencing the stress of a family member's death might be temporarily diminished.

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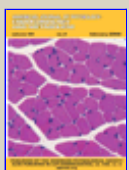
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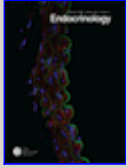
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