

Newer Antidepressants (SSRI's) May Adversely Affect Male Reproduction

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Major depressive disorders are fairly common in the American population, with up to 10% of men diagnosed at some point in their life. Treatment with antidepressants with a class of drugs called SSRIs is commonly prescribed for many men. A recently published article by Tanrikut and colleagues in *Fertility and Sterility* investigated the effect of one of these SSRIs (paroxetine or Paxil) on the following aspects of male reproduction in healthy normal male volunteers: 1) hormonal profiles 2) sexual function 3) sperm DNA integrity 4) semen analysis.

Previous research had raised suspicions that SSRI's may have a negative effect on male ejaculation and could reduce the sperm count as evaluated by standard semen analysis. The authors of the current study recruited healthy men with a normal semen analysis, hormonal profile and sexual function. These men were then given Paroxetine for five weeks and monitored closely. Their semen analysis, hormonal profile and sexual function were investigated to determine any effects.

The results of this study showed a significant reduction in the testosterone hormone levels. This hormone is important for sperm production and male libido. Even though the testosterone level was reduced, it was still in the normal range. In this group of normal males, this reduction is probably not clinically significant. However, significance may possibly be higher in infertile men with low or borderline testosterone levels, treated with SSRIs. The levels of other hormones that are important in male reproduction, such as FSH, LH, and prolactin did not decline. Also, there were no detrimental effects on the semen analysis results.

Another important finding of this study was to show a significant increase in sperm DNA fragmentation. Some studies have associated sperm DNA fragmentation with increased male related infertility and a negative impact on any resulting pregnancy.

Finally, this study showed a significant increase in the development of erectile dysfunction in this group of healthy volunteers. Fortunately, sexual function was restored four weeks after stopping the medication.

This study is interesting in that it raises suspicions that a commonly prescribed antidepressant, paroxetine, may influence male fertility. However, before one can conclude that the results of this study are final and that all medications from the SSRI class, or other kinds of antidepressant medications are detrimental, more studies should be performed. Meanwhile, patients should not discontinue or change their antidepressant medication without the advice of the treating physician.

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