

Varicocele treatment

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Varicocele and infertility

Varicocele is a finding in men where enlarged or dilated veins occur in the blood vessels of the scrotum. Normally the scrotal veins have valves that regulate the blood flow. However, in some cases, the valves are absent or defective and the blood does not circulate out of the testicles efficiently. This results in swelling of the veins above and behind the testicles. 85% of varicoceles develop in the left testicle.

It is estimated that varicoceles are present in about 20% of the normal male population and up to 40% of an infertile population. It is uncertain how varicoceles may cause infertility. Some evidence points to the increased temperature of the blood raising the temperature of the testes, which then damages the sperm. Heat can damage or destroy sperm. The increased temperature may also impede production of new, healthy sperm. Another theory is that in men with varicocele, the testicular fluid which carries sperm has an increased concentration of chemicals which can damage sperm. The chemicals are called reactive oxygen species or ROS.

Previously, varicoceles have been treated using various types of surgical procedures.

Study points to new varicocele treatment Recently, a study published in the Journal of Andrology found that some men with infertility and varicocele may respond to medical treatment.

The study followed 325 men with infertility and either low sperm counts, low sperm motility, a high percentage of abnormal appearing sperm or some combination of those three problems. A special type of ultrasound known as echo-color Doppler was used to identify men with a varicocele. Varicoceles were graded as 1 if it was very small and 5 if it was very large and severe. 123 of the men could not be found to have a varicocele or any other cause for their low sperm numbers and were referred to as idiopathic causes. The remainder of the men had varying degrees of varicocele.

For treatment, the men were divided into three groups. Group 1 received a non-active or placebo only. Group 2 took a non-prescription supplement called Proxeed. Group 3 used Proxeed and an anti-inflammatory drug (which is not available in the United States) called cinnoxiam.

The placebo group showed no improvement in their sperm numbers. However, after 3 months, both of the treatment groups showed an improvement in the concentration and appearance of the sperm. When the medications were stopped for three months, their numbers went back down to where they were before the study. Statistical analysis showed that the men who benefited from treatment were those with no detectable cause, and those with varicocele Grade 1-4. The largest, or Grade 5 varicoceles, did not show improvement with medication.

The pregnancy rate in the placebo group during the entire course of the study was 1.7%. The Proxeed group saw about 22% of the couple achieve pregnancy. The Proxeed and cinnoxiam group achieved a pregnancy in 38% of the couples.

What does it all mean? We can conclude several things from this study. Some things, we knew before, some things we did not.

Men with severe abnormalities in their semen analysis have a much lower chance for achieving pregnancy with their partners without treatment. Whether their sperm abnormalities have no identifiable cause or if a varicocele is identified, medical treatment seems to be a reasonable successful alternative to surgery. Of course, performing surgery puts a man at greater risk for possible problems.

Finally, treatment seems to be associated with an improvement in pregnancy rates. Based on the evidence, men should be offered a trial of medical therapy before considering surgery.