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February 1, 2001

SEMINAL REACTIVE OXYGEN SPECIES (ROS) IN VARICOCELE PATIENTS: PRELIMINARY RESULTS DEMONSTRATE TREND OF INCREASE ROS LEVELS WITH VARICOCELE GRADE, NOT TESTIS SIZE.

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Ipsilateral testicular atrophy is associated with decreased total motile sperm counts in infertile men with clinical varicoceles, particularly large varicoceles. Increased levels of ROS are also associated with clinical varicoceles; however, its correlation with testis size and varicocele grade is unknown.

We retrospectively reviewed the ROS levels of 26 men who presented with unilateral left varicoceles. Varicoceles were graded and testis size determined by caliper by an experienced examiner (AJT). Testicular volume was calculated by 0.52XlengthXwidthXdepth. ROS levels were determined by a chemiluminescence assay.

Nonparametric correlations with ROS levels showed no significance with left testis size (p=0.98); however, there was a trend of increased ROS levels with grade of the varicocele (p=0.10). There was no difference in ROS based on a comparison group classified by left testis volume (p=0.72) or a difference in right and left testis volume (p=0.84); however, a trend was again seen comparing left grade I versus grade 2+3 (p=0.12).

Although a larger sample size will be needed to determine if a true relationship exists, increased ROS levels may be a predictor of varicocele-induced infertility.