

Abstract

J Androl. 2008 Sep-Oct;29(5):488-98.

Oxidative Stress: A Common Factor in Testicular Dysfunction.

Turner TT, Lysiak JJ.

BACKGROUND: Oxidative stress results from the production of oxygen radicals in excess of the antioxidant capacity of the stressed tissue. Many conditions or events associated with male infertility are inducers of oxidative stress. X-irradiation, for example, or exposure to environmental toxicants and the physical conditions of varicocele and cryptorchidism have been demonstrated to increase testicular oxidative stress, which leads to an increase in germ cell apoptosis and subsequent hypospermatogenesis.

DISCUSSION: Such stress conditions can cause changes in the dynamics of testicular microvascular blood flow, endocrine signaling, and germ cell apoptosis. Testicular oxidative stress appears to be a common feature in much of what underlies male infertility, which suggests there may be benefits to developing better antioxidant therapies for relevant cases of hypospermatogenesis.

PMID: 18567643

FREE FULL TEXT

