
Re: The Effect of Aerobic Training on Serum Levels of Adiponectin, Hypothalamic-Pituitary-Gonadal Axis And Sperm Quality in Diabetic Rats

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This is an interesting manuscript about the role of adiponectin and hormones and their relationship with fertility potential. Those working with infertility, have always to remember that abnormal semen analysis could be associated with many systemic diseases.

Diabetes mellitus, obesity and hypogonadism are often associated with abnormal semen analysis; it is well known that after bariatric procedures there is an improvement in semen quality and also after hormones therapy in those cases of hypogonadisms. What is less known is about the recovery of spermatogenesis in diabetes mellitus patients but this study can explain how and when. In clinical practice all these diseases can be associated with each-other and for this reason all these patients should have weight control and should have a good sport activity. If bariatric surgery can reduce diabetes mellitus, hypertension and hypogonadism (abnormal hormonal axis – FSH, LH and TT), aerobic training can improve semen quality through the adiponectin action for all these patients.⁽¹⁻²⁾ TT action is related to the adipose tissue, and testicular volume has a relationship with spermatogenesis and fertility potential. Probably in clinical practice these patients have lower testicular volume respect to controls⁽³⁾. Sport activity can improve hormonal function, with lower adipose tissue percentage higher adiponectin levels and higher TT with improvement in semen quality. An interesting key point is to verify in humans if there is also in these patients a correlation between spermatogenesis and testicular volume especially after weight control.

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