

## Effect of oral administration of Tribulus terrestris extract on semen quality and body fat index of infertile men.

Salgado RM<sup>1</sup>, Marques-Silva MH<sup>1</sup>, Gonçalves E<sup>1</sup>, Mathias AC<sup>1</sup>, Aguiar JG<sup>1</sup>, Wolff P<sup>1</sup>.

### Author information

<sup>1</sup> Genics - Reproductive Medicine and Genomics, São Paulo, Brazil.

### Abstract

Male fertility can be evaluated through complete semen analysis. Plants belonging to the Tribulus genus are known for their role in enhancing sex hormone levels and semen quality. The aim of this study was to evaluate the effects of *T. terrestris* on semen quality and physiological parameters. Sixty-five men with abnormal semen evaluation were included in this study, in which they were prescribed with oral administration of Androsten<sup>®</sup> (250 mg of Tribulus terrestris dried extract per capsule). Body fat percentage, lean muscle mass gain, fluctuation in steroid hormone levels and all semen parameters were analysed during the period of treatment. The results demonstrated that decrease in the percentage of body fat and increase in lean mass were significant, as well as increase in dihydrotestosterone levels. Complete semen analysis evaluated at the end of treatment showed significant enhancement in sperm concentration, motility and liquefaction time. Protodioscin, the main phytochemical agent of the Tribulus genus, acts on sertoli cells, germ cell proliferation and growth of seminiferous tubules. This component is known to convert testosterone into dihydrotestosterone, which plays important roles in male attributes. Our results indicate the therapeutic use of Tribulus terrestris by men presenting altered semen parameters, and/or undergoing infertility treatment.

**KEYWORDS:** Tribulus terrestris ; dihydrotestosterone; male infertility; protodioscin; semen quality