

## Quantitative stereological analysis of cryptorchid testes in men

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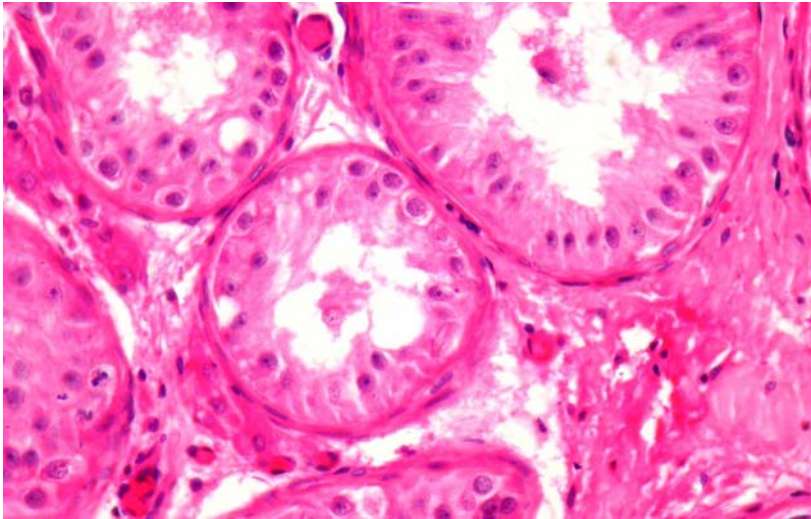
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**Introduction and aim:** Stereological analyses of cryptorchid testes are rare and deal with experimental animals or with infant testicles. Today there are still many questions about etiology and dilemmas about pathogenesis of this disorder. Because of all mentioned above as well as new possibilities for treatment of male infertility, we investigated some quantitative and stereological parameters of human cryptorchid testes after puberty.

**Materials and methods:** The study included testes and biopsies of 47 young men with unilateral cryptorchidism, aged from 18 to 26 y. Most of the investigated cryptorchid testes were located on high-scrotal position (n=38) and some were fixed in inguinal canal (n=9). Six testes and biopsies of men, 20 to 30 years old, with complete spermatogenesis were used as the control group. In all men the length, width and thickness of the cryptorchid and the contralateral scrotal testis were measured by ultrasound. From these parameters the volume of the testes was determined. The bioptic material from all testes was analyzed by histological and stereological methods.

**Results and conclusion:** The volume of cryptorchid testes (high-scrotal and inguinal group) was significantly decreased in comparison with control group. On the contrary, the volume of the contralateral, scrotal testis of patients was significantly increased when compared with the controls. The volume of the tissue components of the testis: seminiferous tubules, seminiferous epithelium and interstitial tissue, were also significantly reduced in both groups of cryptorchid testes. There was also a more significant increase in the level of testis damage in the inguinal than in the high-scrotal pathological group. These stereological parameters may be useful in possible assessment of the infertility treatment of cryptorchid patients.



Picture 1. Cryptorchid testis stained with hemalaun-eosin.

