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THE REPRODUCTIVE FUNCTION CHANGES IN MEN WITH INGUINAL HERNIA

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According to the data, 20 men out of 1000 are hernia carriers (2%), of which inguinal hernias are diagnosed in about 75%. Nowadays, infertility is a very important medical and social problem. The share of infertile marriages is increasing every year and currently is about 15%. One of the etiological factors of male infertility is the presence of inguinal hernia. That is why the aim of the given study was detailed upon the inguinal hernia effect on male reproduction.

The study included 10 healthy volunteers (control group) and 49 patients with oblique inguinal hernia (main group). All patients were of reproductive age from 18 to 45 years old (average age of men in the main group was 32.7±6.69 years, and in the control group was 33.1±6.98 years).

Tests of blood circulation in the testicular arteries were performed on an ultrasound scanner. Hemodynamic parameters were studied: peak systolic blood flow velocity (PSFV), terminal diastolic blood flow velocity (TDFV), mean linear blood flow velocity (MLFV) and resistance coefficient (RC). The study was performed on the healthy and affected sides.

Analyzing the obtained data, no significant difference in blood flow was found in the control group. Instead, the data obtained in the main group show a significant decrease in all indicators of blood flow velocity, namely PSFV – 18.9±0.49 cm/s against 21.7±0.57 cm/s in healthy individuals, TDFV – 5.1±0.33 cm/s against 7.2±0.46 cm/s in healthy individuals and MLFV – 9.7±0.31 cm/s against 12.0±0.42 cm/s in healthy individuals ($p<0.01$ for all indicators). Along with these indicators, the RC is significantly increased – 0.73±0.018 against 0.67±0.019 in healthy individuals ($p<0.05$).

Doppler examination of blood circulation in the testicular arteries showed that in comparison with the unaffected side, the preserved blood flow was only in 61.3% of patients. That is explained by inguinal hernia worsening arterial blood supply to the testis, which was observed with increasing duration of hernia, especially of more than 36 months.

The volume of the testis on the affected side was lower, approximately 18.5±0.36 cm^3 ($p<0.05$) comparing with the same indicator in healthy individuals, 21.6±0.44 cm^3. These data once again prove the negative impact of the inguinal hernia on the condition of the testicles. Antisperm antibodies were detected in 30.1% of patients in the main group, while in the control group antisperm antibodies were not detected in any of the subjects. The obtained data can be explained by the destruction of the blood-testicular barrier structures, mainly at the pressure of the contents of the hernia on the elements of the spermatic cord.

Male reproduction changes can be explained by the pressure of the hernia sac on the vessels of the spermatic cord, which increases with a long herniation period and impairs testicular blood supply. That is why the need for early surgical treatment of inguinal hernia is a must, especially in people of reproductive age.

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MORPHOLOGICAL CHANGES OF TISSUES IN PATIENTS WITH CHRONIC INGUINAL HERNIAS

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During last years the incidence of inguinal hernias grew significantly. The complications development in these patient after inguinal hernioplasty reached,6-18%. It can be explained by the fact that during surgery and postoperative period surgeons don‘t take all the aspect of complications pathogenesis in elderly patients into consideration.

Objectiv of the study was to evaluate the morphological changes of hernia sac and hernia-sarrounding tissues with inguinal hernias.