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**Introduction & Objectives:** The problem of the effect of varicose veins of the pelvic organs in men on the condition of the prostate gland is more negotiable. Objective: Our study is for establish the effect of chronic pelvic venous stasis on the prostate in an experiment on animals.

**Materials & Methods:** We firstly established a model of rabbit's experimental pelvic vein stasis. For modelling were selected 34 adult male rabbits weighing 2.6-3.2 kg. Three groups of animals were formed:

Control group: 4 rabbits (for studying ultrasound and radiologic anatomy). Group 2 (15 animals): v. sacralismedialis was ligated, and then progesterone was injected intramuscularly. Group 3 (15 animals) were false-operated, and then progesterone was injected too. Ultrasonic duplex scanning was held after 1, 3 and 6 months of experiment: diameter of the veins in the pelvis was measured, the fact of blood reflux in veins under the manual compression was recorded. Animals were outputed from experiment in the same time, with following venography. Prostate tissues were examined for histological examination.

**Results:** Persistent venous congestion was registered in the second group. Histological examination at 1 month after surgery revealed the infiltration, the weakening of the stroma of the prostate gland, the appearance of lymphocytes and segmented leukocytes, full-blooded vessels expand. After 3 months progressed stromal edema, resulting in a narrowing of the excretory ducts acini. In their lumen - leukocytes and desquamated epithelial cells. Histiocytes, and plasma cells were found in the interstices around the acini. After 6 months, the main process is the transformation of macrophages into fibroblasts, sealing and thickening of the collagen fibers have been reported. In the excretory ducts acini - scarring.

There are no signs of vein varicose and changes in prostate in the third group of animals.

**Conclusions:** Morphological manifestations of regional hypertension in the pelvis are infiltration, destruction of cells in the prostate and sclerogenesis.