Morphological Features of Pregnancy of Uterine Leiomyomas

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**Introduction/Background**

According to numerous publications of diseases among women of reproductive age, uterine leiomyoma are in the second place in the structure of gynecological pathology. Uterine leiomyoma - a benign, well-encapsulated tumor limitation, the source of which are the smooth muscle cells of the body of the uterus or cervix. According to different authors, in 0.4-3.9% of cases, the presence of tumor is diagnosed during pregnancy. Presence of myomas nodes leads to the threat of termination of pregnancy, missed abortion, the threat of fetal hypoxia, early and late gestosis, bleeding during pregnancy and childbirth. Moreover, the nature of complications depends on the size and morphological features of tumor’s myoma nodes.

**Aims**

To study the morphological features of leiomyomas during pregnancy given the size of tumors and secondary changes in it.

**Methods**

Morphological examination of myomas was conducted in 25 cases of pregnancies completed caesarean section in 36-39 weeks of gestation with subsequent enucleation nodes. All myomas were divided into 2 groups: a core group of 10 nodes (more than 5 cm) and a control group of 15 nodes (less than 5 cm). On gross examination of tumors taken into consideration the number, size, texture, color, structure and the presence of degenerative changes. In each case of leyomioma nodes excised tissue portions from the central zone and the edge of the paracentral. The fragments of tissue were fixed in neutral formalin, followed by pouring into paraffin. With each produced histological preparations stained hematoxylin and eosin, and van Gieson’s stain. Microscopic investigations were conducted on increasing × 100 × 400 with a microscope Primo Star (Carl Zeiss, Germany).

**Results**

At external examination of uterine control group were tightly-elastic and dense consistency. In the main group was uneven consistency of nodes, with the presence of foci of softening. In the main group tumor size reached 5.0 cm to 17.0 cm in diameter, these nodes along with portions of white or grayish white color observed small or large grayish yellow necrotic foci, and cystic formation was observed, and red degeneration, calcification. In the control group the size of myomas nodes were ranging from 0.5 cm to 4.5 cm in diameter, usually have multiple nodes localization. Grossly it had tumors pale pink, fibrous structure. Histological examination of the control group has some parts of the tumor that are rich in blood vessels and the cells that were in a state of hypertrophy, as observed focal stromal edema. While in the main group was characterized by not only the presence of necrosis, as well as defined areas of circulatory disorders, foci of hemorrhage, edema, or hyalinosis of tissue. This research showed a high variability of macroscopic and microscopic characteristics of leiomyomas and the presence of secondary changes of varying severity. There is every reason to believe that the size of the tumor nodes and pathologic features of leiomyomas may be an important marker for assessing the severity of disorders of homeostasis in utero-placental complex, and should be considered in the monitoring of pregnancy and childbirth.