Ultrasound image of the uterus after myomectomy of large fibroids with intraoperative application of absorptive materials with fibrinogen.

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Objectives: Uterine fibroids are benign tumors occurring in about 25% of women during their reproductive age. In cases of fertility preservation myomectomy is recommended. Myomectomy of large fibroids is associated with massive blood loss and increased risk of hysterectomy, what leads to irreversible infertility.

The aim of the study was to evaluate the ultrasound image of the uterus after myomectomy of large fibroids with intraoperative application of absorptive materials with fibrinogen.

Methods: The study included 12 patients hospitalized due to symptomatic, single intramural fibroids larger than 6 cm in diameter, so distorting uterus cavity. In order to preserve fertility patients were qualified for myomectomy. In 5 patients, after enucleation of fibroids in addition to hemostatic sutures, in order to reduce bleeding absorbent material with fibrinogen has been applied to the lodge after fibroids (study group, SG). In 7 patients, intraoperative absorptive materials with fibrinogen was not applied, thus the lodges after fibroids was provided only by sutures (control group, CG). In all patients’ ultrasound examination has been done 1, 3, 6 and 12 months after myomectomy to assess the healing of the myomectomy wound.

Results: In CG, in the ultrasound examination, an avascular hypoechogenic area, less than 3 cm in diameter, was observed. In SG, 1 month after myomectomy an avascular hyperechogenic area (AHA) (Fig. 1) corresponding to the absorbent material was observed in the place of enucleation of the fibroid. Median (Me) AHA volume (calculated from 3 dimensions) 1 month after surgery was 30% of the volume of enucleated fibroids. Me AHA volume 3 and 6 months after myomectomy was respectively 12.5% and 3.7%. 12 months after surgery, in all patients, AHA was not observed (an ultrasound image similar to CG) (Fig. 2).

Conclusions: we conclude that uterus image after myomectomy of large fibroids with intraoperative application of absorptive materials with fibrinogen is similar to that after classic myomectomy, after 12 months of observation.

Fig. 1. Ultrasound scan in SG patient 1 month after myomectomy. On the posterior wall of the uterus visible AHA, 36 x 21 mm in diameter.

Fig. 2. Ultrasound scan in SG patient 12 months after myomectomy (the same patient as in Fig 1). On the posterior wall of the uterus AHA was not observed.