

## 8. Abstract

**Introduction:** Endometriosis is a common condition affecting 5–10% of women at reproductive age. Foci of endometriosis may be localized within the genital organ being referred to as genital endometriosis or outside the genital organ as extra-genital endometriosis. The ovaries are a very common location of genital endometriosis, where it takes the form of endometrial cysts. Endometrial cysts and their treatment cause ovarian reserve decline. Therefore, therapeutic methods are being sought to limit this adverse effect.

**Aim of the dissertation:** The doctoral dissertation was intended to investigate the impact of hydrodissection technique, i.e. preoperative separation of cyst and ovary walls, for enucleation of endometrial cysts.

**Material and method:** The prospective study was conducted after obtaining the consent of the Bioethical Committee. A group of 53 women qualified for laparoscopic enucleation of endometrial cysts were enrolled in the study. By means of randomization 2 groups were created: in group I the classic endometrial cyst enucleation was used, while in group II the enucleation was preceded by the hydrodissection with physiological saline.

**Results:** Hydrodissection proved to:  
increase the frequency of total endometrial cyst removal (69.2% vs. 22.2%,  $p = 0.006$ )  
decrease the frequency of endometrial cyst fragmentation (30.8% vs. 77.8%,  $p = 0.006$ )  
decrease the frequency of excision of a fragment of healthy mature ovarian tissue with endometrial cyst (14.3% vs. 0%,  $p < 0.01$ )

Hydrodissection was not found to reduce surgery time, the frequency of ovarian stitching, reduce postoperative AMH decline, and reduce postoperative pain.

All positive changes found in the randomized study after the use of hydrodissection, incline to recommend this method in the treatment of endometrioma.