

Ovarian Damage after Laparoscopic Cystectomy for Endometrioma

Oana Mircea¹, Edina Bartha², Mihai Gheorghe², Traian Irimia¹, Radu Vlădăreanu¹
and Lucian Pușcașiu²

¹Carol Davila University of Medicine and Pharmacy, Elias Emergency University Hospital, Bucharest, Romania

²University of Medicine and Pharmacy, Mureș County Emergency University Hospital, Târgu Mureș, Romania

Abstract

Introduction: Despite extensive research endometriosis is an area with important controversies. The European Society of Human Reproduction and Embryology issued in 2014 the last Guideline for endometriosis management including the statement that among 83 recommendations in 32 cases the best available evidence was only based on good clinical practice, further research being necessary to solve the lack of evidence in this pathology. The prevalence of endometriosis is unknown in Romania but in the medical literature estimates range from 2 to 10% of women of reproductive age, to 50% of infertile women, worldwide. Ovarian endometrioma prevalence goes up to 44%. A Cochrane review published in 2008 by Hart et al. concluded that excisional surgery of ovarian endometriosis results in a more favorable outcome compared to drainage and ablation with regard to recurrence, pain symptoms and sub-sequent spontaneous pregnancy in subfertilewomen- so the gold standard was set. But several authors revealed that ovarian tissue was inadvertently excised together with the cyst wall and endometrioma cystectomy is associated with a significant decrease in residual ovarian volume that may result in diminished ovarian reserve and function. The aim of our retrospective study was to evaluate whether or not ovarian parenchyma is inadvertently removed during laparoscopic surgery for endometrioma in a Romanian academic center.

Material and method: We performed a retrospective study including women having undergone endometrioma excision, between January 2009 to June 2014 in the Department of Gynecology and Obstetrics of Targu-Mures University Hospital. Histological specimens of excised endometriomas were reviewed by different pathologists, who carried out serial microscopic sections according to pathology protocol for diagnosis of ovarian mass but not specific for the ovarian parenchyma removed with the cyst.

Results: Among 202 endometriomas, drainage and ablation was done in 60 cases and excisional surgery in the remaining 152 cases. Ovarian parenchyma was found in 40% of cases of endometrioma cystectomy.

Discussion: We observed that endometrioma cystectomy leads to ovarian tissue removal in an important number of cases. Furthermore, at the time of surgery the amount of ovarian parenchyma loss may increases proportionally with increases in cyst diameter and patient age. Considering that most of the woman in our series were infertile and because of data from series using plasma energy, a shift in the endometrioma treatment paradigm is likely to occur.

Key words: endometriosis, laparoscopy, ovarian reserve