Morphologic study of the excised ovarian tissue by laparoscopic cystectomy in women with ovarian endometriosis

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Context: Nowadays, the main method of management of ovarian endometriomas is a laparoscopic cystectomy. On the other hand, the scientists underline the negative impact of laparoscopic cystectomy on the ovarian reserve, that decreases the reproductive potential of a woman. Objective: The aim of this study was to evaluate the thickness of the ovarian parenchyma inadvertently excised along with the cyst wall after laparoscopic excision of endometriomas due to the two histologic variants of structure of the capsule. Patients: This prospective study was conducted in RNRMU City Clinical Hospital No. 31 during the last year. Our study included 37 reproductive aged women, between 19 and 43 years (29.94±4.96). Interventions: 37 patients underwent laparoscopic stripping surgery for endometriomas. Methods: After histologic identification we evaluated the thickness of removed ovarian tissue (T, mkm), the thickness of cyst wall (E, mkm) and the thickness of cyst wall fibrosis (F, mkm) taking into account the division into two histologic variants of endometriosis: glandular-cystic (n=15) and cystic (n=22). Main outcome measures: The analysis of the thickness of the removed ovarian tissue demonstrated that in glandular-cystic variant of the cyst wall was thicker (1053±470.4 mkm) compared with the cystic variant (827.8±570.7 mkm), p=0.045, that can be the result of less fibrotic lesion and the thinner endometriotic cyst wall, provided the difficulties in its differentiation of cyst wall from adjacent ovarian tissue. Results: The survey of the results showed the inverse negative dependence between the thickness of fibrosis and the removed ovarian tissue (CI - 0.266). Conclusion: The obtained results demonstrated that the patients with glandular-cystic variant can be referred to the risk group of the ovarian reserve failure after the surgery.