

Increasing trend of serum antimüllerian hormone level after long term follow up of endometrioma resection

Author: A. Haghgoo¹

Affiliation: ¹ Department of Obstetrics & Gynecology. Nikan hospital Tehran, Iran

Abstract

Background: Endometriosis is a chronic disease mostly affecting women in their reproductive age. Some evidence suggests that surgery of ovarian endometrioma may have a detrimental effect on ovarian reserve. The aim of this study was to evaluate the changes of serum Anti Mullerian Hormone (AMH) levels in patients with endometrioma after cystectomy.

Methods: A prospective study was performed at Nikan hospital on 58 patients with endometrioma who underwent laparoscopic cystectomy. Of them, 30 had unilateral endometrioma and 28 had bilateral endometrioma. Complete excision was done, pelvic endometriotic implants as well as deep infiltrative endometriosis was resected. Sutures were performed for the closure of ovarian parenchyma and bleeding control. No use any hot energy devices such as cautery on ovaries for ablation, coagulation or resection of the endometrioma were used. Serum AMH levels were measured preoperatively at 3, 9, and 15 months postoperatively.

Results: Serum AMH levels decreased significantly from the preoperative sample (2.98 ± 2.47 ng/ml) to 3 months after laparoscopy (1.07 ± 1.06 ng/ml), then gradually increased 9 months (1.47 ± 1.16 ng/ml) and 15 months (1.95 ± 1.85 ng/ml) after surgery, without returning to the preoperative levels during the follow-up time of study.

Conclusion: There is a fluctuation pattern in AMH levels from preoperative to 15-month follow-up after endometrioma surgery using only sutures for ovarian hemostasis. Firstly, there is decline in AMH level 3 months after surgery, then an increasing trend was observed gradually up to 15 months after surgery. Controlled studies are needed to compare the effects of various cystectomy methods on the ovarian reserve after endometrioma surgery.

Keywords

Endometrioma, Anti Mullerian Hormone, laparoscopy, cystectomy, endometriosis, fertility preservation