Evaluation the effect of vasopressin injection during operation of endometrioma on the ovarian reserve

OBJECTIVE: To evaluate the effects of vasopressin injection technique in laparoscopic cystectomy on ovarian reserve in patients with unilateral endometrioma.

DESIGN: Randomized prospective study.

PATIENTS: Seventy-five women in the age between 18-45 and with unilateral endometrioma (3-6 cm), that was candidate for ovarian cystectomy.

INTERVENTIONS: For the first group laparoscopic cystectomy of endometrioma was performed without injection of vasopresin (control group), in second group laparoscopic cystectomy with vasopresin injection technique at the mesovarium tissue (5ml from 10unit vasopresin /20ml saline solution) was performed as a case group.

MEASUREMENTS AND MAIN RESULTS: The number of coagulation events on the ovarian cortex for hemostasis and the amount of bleeding during cystectomy was measured in two groups. The anti mullerian hormone (AMH) level was determined before surgery and at 3-, 6-month follow-up after laparoscopic cystectomy in the two different groups. In the vasopresin group, fewer coagulation events were required to achieve hemostasis, less hemorrhage of ovarian tissues were estimated, and higher postoperative AMH levels were detected after three months than in the control group (p < .01). But after six months follow up there was no significant difference in the AMH level in both groups. There was no significant difference in the staging and scoring of endometriosis in the 2 groups (p > .05).

CONCLUSION: Vasopressin injection is an ideal procedure to reduce damage from usual laparoscopic cystectomy of ovarian endometriomas to protect ovarian reserve.

Keywords: KEYWORDS: Unilateral endometrioma; Anti-mullerian hormone; Laparoscopic cystectomy; Ovarian reserve; Vasopressin

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