

# Laparoscopic guided mini-laparotomy. A novel technique for the management of benign large ovarian cysts: An interventional study

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November 3, 2020

## Abstract

Objective to evaluate the efficiency and safety of a novel technique to keep benefits of laparoscopic management in women with large ovarian benign cysts without affection of the ovarian reserve Design: An interventional study Setting: Kasr Alainy medical school, Cairo university hospital Population: 112 women with large benign ovarian cyst candidate for ovarian cystectomy. Methods: The technique started with laparoscopy followed by guided cyst aspiration followed by exteriorization of the ovary through minilaparotomy and completion of cystectomy through microsurgical technique. Main Outcome Measures: The primary outcome was ipsilateral recurrence of the cyst. Other outcomes included ovarian reserve assessment and postoperative pain. Results: The number of women with recurrence in the ipsilateral ovary after 12, 18 and 24 months were 5 (4.5%),16 (14.3%),20 (17.85%) respectively. Assessment of ovarian reserve revealed a significant decrease in the level of serum AMH ( $2.82 \pm 0.44$  vs.  $2.50 \pm 0.42$ ) and a significant increase in AFC ( $3.5 \pm 1.7$  vs.  $4.9 \pm 1.3$ ) after our novel technique in the surgical treatment of ovarian cysts (P-value  $< 0.001$ ). The operative time was  $50 \pm 7$  and  $62 \pm 7$  minutes in unilateral and bilateral cysts respectively. Conclusions: Laparoscopic guided minilaparotomy is a safe and effective technique for the management of large benign ovarian cysts with minimal recurrence rate, ovarian reserve affection, and adhesions.

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