



BRIEF COMMUNICATION

Laparoscopy versus laparotomy for cystic ovarian teratomas

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This retrospective study compared the advantages and disadvantages of laparoscopic surgery and conventional laparotomy for women with cystic ovarian teratomas. The records of 120 women with ovarian teratomas were retrieved via a computer search for a histologically proven diagnosis of benign cystic teratoma and/or dermoid cyst; 49 cases were excluded after review. There was no significant difference in age, parity, body mass index, and history of laparotomy between the laparoscopic and laparotomy groups (Table 1), but there were significant differences in teratoma diameter, operating time, blood loss, and hospital stay between the two groups (Table 2). When criteria for surgical treatment were compared, no differences were noted in the patients' age, parity,

body mass index, or history of pelvic surgery between the group of 30 women who underwent laparoscopic surgery and the group of 41 women who underwent laparotomy. The advantage of laparoscopic surgery over laparotomy resided in a shorter hospital stay (3.63 ± 1.38 vs. 6.37 ± 1.88 days; $P < 0.001$), less blood loss during surgery (37.33 ± 29.47 vs. 140.85 ± 153.01 mL; $P < 0.001$), a prompter recovery, a lesser need for analgesic drugs, greater preservation of ovarian tissue, and fewer postoperative adhesions; however, it had the disadvantage of a longer operating time (135 ± 54.77 vs. 85.12 ± 27.80 min; $P < 0.005$).

Benign mature cystic teratomas or dermoid cysts make up 10% to 15% of all ovarian tumors. Most teratomas are benign but malignant transformations occur in 1% to 3% of cases [1]. Teratomas should be removed when diagnosed.

Pain control treatment was given to 15 patients in the laparotomy group but none was needed in the laparoscopic group.

Laparoscopic removal of benign adnexal masses, including teratomas, may become the gold standard except when malignancy is suspected [2]. Ideally, spilling teratoma contents in the abdominal cavity should be avoided not only to minimize the risk of chemical peritonitis but also because of the

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Table 1 Comparison of patients' characteristics^a

Characteristic	Laparoscopy (n=30)	Laparotomy (n=41)	95% Confidence interval	P value
Mean age, years	36.27±10.02	31.83±11.48	−0.78–9.66	0.094
Mean parity	1.47±1.28	1.12±1.05	−0.21–0.90	0.218
Body mass index ^b	21.18±2.88	22.83±4.41	−3.49–0.19	0.078
Prior laparotomy, No.	0.20±0.41	0.15±0.36	−0.13–0.24	0.558

^a Values are given±S.D.^b Calculated as weight in kilograms divided by the square of height in meters.**Table 2** Comparison of patients' clinical data^a

Variable	Laparoscopy (n=30)	Laparotomy (n=41)	95% Confidence interval	P value
Diameter of mass, cm	6.59±2.80	8.73±2.75	−3.47–0.81	0.002
Operating time, min	135±54.77	85.12±27.80	30.06–69.69	<0.001
Blood loss, mL	37.33±29.47	140.85±153.01	−160.1–46.94	<0.001
Hospital stay, day	3.63±1.38	6.37±1.88	−3.54–1.92	<0.001

^a Values are given±S.D.

possibility of malignant elements within teratomas [3,4]. In our 120 patients, no recurrence or chemical peritonitis occurred.

One should also be prudent not to insert the tip of the suction device into the teratoma before pulling the edge of the endobag out of the abdominal cavity. Otherwise, hairs within the teratoma may fall into the abdominal cavity, and even a few hairs will cost the surgeon much time to search and remove.

Teratomas larger than 10 cm and with solid parts are regarded as a potentially malignant and laparotomy should be preferred. This may explain why the tumor size was significantly larger in the laparotomy group than in the laparoscopic group in this review.

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