Single port laparoscopic surgery for adnexal masses

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Introduction: Over the last few decades, advancement in minimally invasive surgical technique has resulted in it becoming the standard of care for the management of adnexal masses. Our study aims to evaluate the feasibility, safety and operative outcome of Single port laparoscopic surgery (SPL) for adnexal masses.

Methods: This is a retrospective study that analyzed all patients who underwent SPL surgery for an adnexal pathology from 2012 to 2017 at King Fahad Medical City. We analyzed the patient’s age, body mass index (BMI), operative time, estimated blood loss, Size of the mass, histopathology result and operative complications

Results: In total, 48 patients underwent 48 surgeries. The median age was 32 years (range12 - 88 years). The mean BMI was 27.27 ± 6.06 kg/m². 14 (29.2%) Patients had a history of at least one comorbidity. There was one case (2.08%) that required a conversion to laparotomy due to dense adhesions. The median size (Greatest Dimension of resected lesions) was 8.5 cm (3- 30). The short term and long term postoperative complications (Venous thromboembolism, ICU admission, Infection , Pelvic Collection, Injury to adjacent organs) were 0%. Among the 48 masses removed, 93.8% (n = 45) were benign, 4.2% (n = 2) were borderline or low malignant potential, and 2.1% (n=1) was malignant (1A Granulosa cell tumor).

Conclusion: With proper patient’s selection and proper expertise, we believe that LESS may be a safe and favorable surgical option for the management of patients with adnexal masses and provides a great cosmetic benefit. The short-term outcome evaluated by the operative time, complications and blood loss was satisfactory.

Surgical data		
Primary pathological diagnose	Benign cystadenoma	1(2.1%)
	Benign mucinous cystadenoma	3(6.2%)
	Benign ovarian cyst	1(2.1%)
	Benign serous cyst adenofibroma	1(2.1%)
	Benign serous cystadenoma	5(10.4%)
	Ectopic tubal pregnancy	1(2.1%)
	Endometriotic cyst	2(4.2%)
	Fibrothecoma	1(2.1%)
	Heamorrhagic luteal cyst	2(4.2%)
	Intermediate Differentiated Sertoli Leydig tumor	1(2.1%)
	Juvenile granulosa cell tumor	1(2.1%)
	Mature cystic teratoma	10(20.8%)
	Mucinous cystadenofibroma	1(2.1%)
	Mucinous cystadenoma	7(14.6%)
	Mycinous cystadeno carcinoma	1(2.1%)
	No pathology	3(6.2%)
	Paratubal cyst	1(2.1%)
	Serous Borderline tumour	2(4.2%)
	Serous cystadenofibroma	3(6.2%)
	Torsion of paratubal cyst	1(2.1%)
Status	Benign	45(93.8%)
	Borderline	2(4.2%)
	Malignant	1(2.1%)
Procedure Number	1	44 (91.67%)
	2	4 (8.3%)
PRO-1 (main)	Adhenolysis	1(2.1%)
	Bilateral Ovarian Cystectomy	3(6.2%)
	Bilateral Salpingoophorectomy	3(6.2%)
	Right ovarian detorsion	2(4.2%)
	Unilateral Ovarian Cystectomy	22(45.9%)
	Unilateral Salpingoophorectomy	17(35.4%)
Median size (greatest dimension of resected lesions) cm		8.5 (3,30)
Median operative time (minutes)		66 (34,200)
Estimated blood loss (ml)		50 (20,300)
Median hospital stay (day)		1 (1,3)
Median patients' self-reported score for post-operative pain		1 (0,6)
Median (range) shown for continuous variables, Frequency (percentage) shown for categorical variables