

Case Report

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Management of Low Malignant Potential Ovarian Tumor in Postmenopausal Women via Minimal Invasive Surgery in Hospital Putrajaya



KhalizaKazrin Abd Karim, Wan Ahmad Hazim Wan Ghazali* and Anis Iryani Safiee

Department of Obstetrics and Gynecology, Putrajaya Hospital, Malaysia

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***Corresponding author:** Wan Ahmad Hazim Wan Ghazali, Department of Obstetrics and Gynecology Putrajaya Hospital, Department of Obstetrics and Gynecology Putrajaya Hospital, Pusat Pentadbiran Kerajaan Persekutuan, Presint 7, 62250 Putrajaya, Malaysia

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Abbreviations: BOTs: Borderline ovarian tumors; FIGO: International Federation of Gynecology and Obstetrics; WHO: World Health Organization; LMP: Tumors of low malignant potential; RMI: Risk of Malignancy Index; TLHBSO: Total Laparoscopic Hysterectomy with Bilateral Salphingo-Oophorectomy

Introduction

Borderline ovarian tumors (BOTs) form a separate entity within the group of epithelial ovarian tumors acknowledged by the International Federation of Gynecology and Obstetrics (FIGO) in 1961 and adopted by the World Health Organization (WHO) in 1973. Tumors of low malignant potential (LMP) account for 15-20% of all epithelial ovarian cancers, with an incidence of 1.8-4.8 per 100,000 women per year⁵. Nearly 75% of these tumors are stage I at the time of diagnosis. They occur in younger women, are present at an early stage, and have a favorable prognosis. Numerous studies have demonstrated the advantage of a laparoscopic approach over laparotomy for the surgical management of benign adnexal diseases. Laparoscopy can be an alternative to laparotomy for the treatment of borderline ovarian tumors. However, this approach requires strict surgical procedure to avoid under staging, dissemination and wound metastasis.

Case Report

A 60 year old para 4, post menopausal lady was referred to our outpatient clinic from a primary care for an incidental finding of adnexal mass during trans abdominal scan during her routine follow up. She was otherwise asymptomatic in which she did not have per vaginal bleeding, abdominal pain or distension and no constitutional symptom. She has underlying hypertension on single anti-hypertensive therapy. She has no family history of malignancy. Upon physical examination, her vital signs were normal with BMI of 26. Examination of her breasts and thyroid were unremarkable. There were no significant findings upon the examination of respiratory and cardiovascular system. Upon examination of the

abdomen, it was soft and not distended and there was no palpable mass. A transabdominal scan showed an atrophic uterus, atrophic right ovary with a uniloculated, thin walled left ovarian cyst with solid component measuring 5.2cmx4.8cm. There was no papillary projections nor ascites. Her Ca 125 was 11.9IU/ml and her Risk of Malignancy Index (RMI) was 35.7. CT scan showed a complex cystic lesion (5x5cm) within the left ovary with solid component. There was no calcification or fat seen.

Due to her age and the scan findings, she was counselled for Total Laparoscopic Hysterectomy with Bilateral Salphingo-Oophorectomy (TLHBSO) and Omentectomy. A standard manner of surgical management of hysterectomy bilateral salphingo-oophorectomy and omentectomy was performed via laparoscopic approach, using a total of four ports located over umbilicus, right and left lumbar and over the right hypochondrium. The pelvic cavity appeared normal with no free fluid seen. The uterus, bilateral fallopian tubes and right ovary were normal. There was a 7x5cm left ovarian cyst seen which was benign in appearance. The liver, bowels and omentum were also normal in appearance with no adhesion. Lymph nodes were not enlarged. A total laparoscopic hysterectomy with bilateral salphingo-oophorectomy was done and the specimen was removed in bulk transvaginally via a culdotomy. Omentectomy was obtained using advanced bipolar coagulation. Appendix appeared normal and appendectomy was not performed at the time [1].

Peritoneal washing with 50cc was taken using an aspiration needle. This was later reported as negative of malignant cells. The

operation was completed in 2 hours and 24 minutes, performed by an experienced surgeon, with minimal blood loss. There was no post-operative complication and patient was discharged well after 2 days. Histopathology of the ovarian mass was Mucinous Borderline Tumour, with no malignancy to the omentum. Appendectomy was performed laparoscopically 4 months later [2]. For initial follow up, she was seen 6-week post surgery and then her subsequent follow up was every 4-6 months at our outpatient clinic for the first one year. She was otherwise well with no evidence of metastasis. Since then, we follow her up yearly.

Discussion

Several studies have demonstrated that laparoscopic treatment of patients with gynaecologic malignancies was equivalent to traditional surgery, with clear benefits such as lower morbidity and shorter hospitalization [3-4] as well as lower blood loss and operative time [5-9]. Preoperative assessment of borderline ovarian tumors is difficult, as the features are similar to benign ovarian tumors. The sonographic aspect had less influence, as most of the borderline ovarian tumors exhibited features of benign tumors, with infrequent multilocular cysts and endophytic growth. To establish a complete FIGO staging, a combination of intraoperative exploration of the entire abdominal cavity should be conducted, with peritoneal washings, omentectomy, multiple peritoneal biopsies, and complete resection of all macroscopic suspected lesions. For resection of the primary tumor, bilateral salpingo-oophorectomy in combination with hysterectomy is recommended. Lymphadenectomy is not indicated because the recurrence and survival rates for patients with positive or negative lymph nodes were similar.

The value of laparoscopy for treatment of patients with primary ovarian cancer has been evaluated in few studies [10,11]. The use of laparoscopy for staging patients with ovarian cancer should be reserved to a selected group with disease limited to the ovaries and no intraperitoneal spread. When the disease was limited to ovaries, 5-year survival rates were excellent approaching 90% [12-13]. Green-top Guideline "The Management of Ovarian Cysts in Postmenopausal Women" suggested that women with RMI <200 are suitable for laparoscopic management. The surgery should comprise of bilateral salpingo-oophorectomy and should be undertaken by a surgeon with suitable experience. Hence it is feasible in a centre with experts in the field.

This was reflected in this patient where a major operation was safely done through laparoscopic approach with complete tumor excision without the need of generous laparotomy excision. Our

centre has been practising MIS for more than 10 years and hence is a suitable place for this surgery. A shorter duration of hospital stay and recovery was also recorded in comparison to the conventional surgery. Through laparoscopic approach, patients with ovarian cancer could benefit from a less traumatic technique, potentially enabling a faster recovery and early institution of chemotherapy. To our knowledge, this case study represents one of the first reported cases of a comprehensive laparoscopic surgical staging of ovarian tumor in Malaysia. Through this case, the feasibility and safety of laparoscopic approach in managing low malignant potential ovarian tumour in postmenopausal women is highlighted.

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Wan Ahmad Hazim Wan Ghazali. Biomed J Sci & Tech Res



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