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# APPROACH TO THE EXTREMELY LARGE OVARIAN DERMOID CYST
## A Case Report and Literature Review

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## Background

Ovarian dermoid cysts or mature teratomas are benign, arising from three layers of germ cells. These cells can generate ectodermal structures such as hair and teeth, mesodermal structures such as brain tissue and bone, or endodermal structures such as respiratory and gastrointestinal tissue. Management depends on individual symptoms and is usually by laparoscopic or open cystectomy.

## Aim

To present a case of an enlarged dermoid cyst requiring laparoscopic excision and review existing literature regarding management

## Case Description

A 32-year-old woman initially presented to the emergency department with abdominal discomfort and bloating. On CT abdomen/pelvis, she was found to have a 28cm mixed solid and cystic pelvic mass, likely a cystic teratoma with possible malignant transformation. Ovarian tumour markers were elevated, and the patient was reviewed by Gynae-oncology and booked for an elective operation. However, she presented days later with severe abdominal pain, so she was consented for emergency surgery.

The patient underwent laparoscopic left salpingo-oophorectomy and right ovarian cystectomy. The ovary was enlarged, measuring 30cm, filled with straw coloured fluid and solid components. Three small right ovarian cysts also had a similar appearance and were removed. There were no post-operative complications. Histopathology confirmed mature teratomas containing all three layers of germ cells, including lung epithelium, colonic mucosa, bone, and cerebellar tissue.

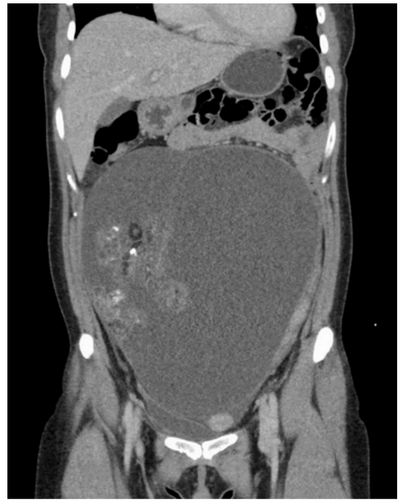

Figure 1: CT Abdo/Pelvis with 28mm teratoma

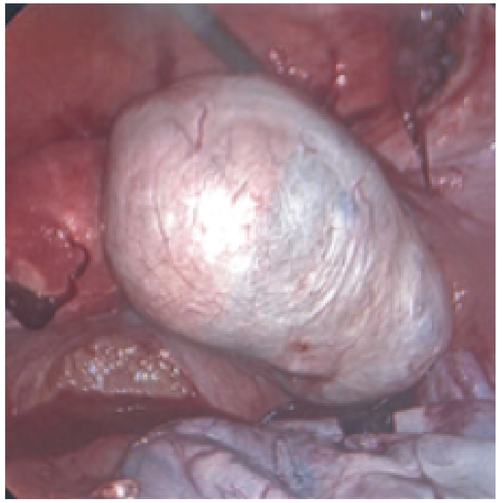

Figure 2: Intraoperative view off teratoma

## Discussion

Mature teratomas are usually asymptomatic and often incidentally diagnosed on physical exam or imaging. Teratomas are mostly benign, with the incidence of malignant transformation estimated to be 0.17–2%..
Torsion is considered the most common complication, with a reported rate between 3% and 16%. Larger tumors are more likely to undergo torsion than smaller tumors[1].

Surgical removal is typically recommended for symptomatic relief, to obtain a definitive diagnosis, and decrease the risk of complications such as torsion, but studies have also supported surveillance of small cysts with a slow growth rate.
Given the accuracy of preoperative diagnosis, studies suggest that teratomas can be treated surgically using laparoscopy. However, laparotomy is generally preferred with large or bilateral lesions and those suspicious for malignancy in case surgical staging is required.2
If laparoscopy is performed, a rare risk of spillage can occur, leading to chemical peritonitis. However, review of 15 studies in the literature revealed only 0.2% incidence of chemical peritonitis. If spillage does occur, it can be contained in the endobag followed by vigorous jet-wash suction irrigation.3

Performing a cystectomy or an oophorectomy is based on cyst size and patient age, desire for future fertility, status of the other ovary, and presence of other pelvic pathologies.4

## Conclusion

Based on current literature, asymptomatic women have the option of watchful waiting, but if pain or discomfort arise, removal of the cyst with preservation of ovarian tissue is ideal. However, if the cyst is large or suspicious, oophorectomy is then recommended.

## References

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