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Cyst in disguise: a large dermoid

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Case

20 year-old nulliparous woman presenting to the emergency department with a four day history of worsening right lower quadrant pain.

- Associated nausea and diaphoresis at time of onset
- Denied abnormal PV loss/fever/urinary symptoms/changes to bowel habit

Examination findings

- Generalised lower abdominal tenderness without any signs of peritonism
- Despite body habitus able to appreciate a large immobile mass at level of umbilicus on bimanual

Background

- Morbid obesity (BMI 40)
- Sexually active young woman, no regular contraception
- No previous STIs
- Cervical screening not initiated yet
- Denies history of ovarian cysts/cyst accidents
- Menses irregular, reports heavy menstrual bleeding since onset of menarche
- No significant family history of ovarian or uterine cancers

Investigations

- Haemoglobin stable
- Lactate dehydrogenase mildly elevated
- CA 125, CA 19.9, CEA not elevated
- HCG negative

Imaging

- 16 cm cystic lesion in the midline with internal septations, solid components and vascularity
- Difficult to assess if ovarian/paraovarian in origin

Decision made to proceed to surgery

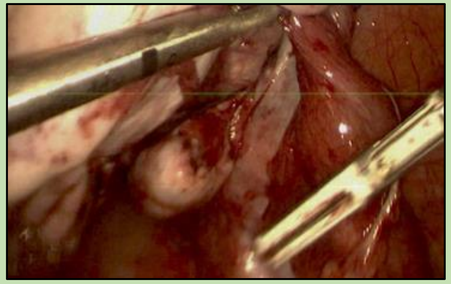
- Diagnostic laparoscopy performed
- Difficulty identifying origin of mass and mobilising it laparoscopically
- Senior assistance sought intra-op
- Converted to mini laparotomy

Intra-operative findings

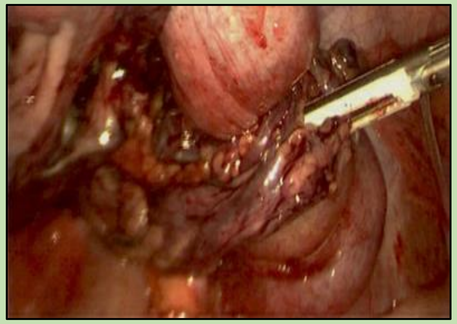
- Large thick walled cyst attached to infundibulopelvic ligament
- Detached from right ovary itself by strangulating omental band that had eroded through the cyst base
- Cyst content confirmed this was a large dermoid (contents included fat, hair and bone fragments)

Histology/Microbiology

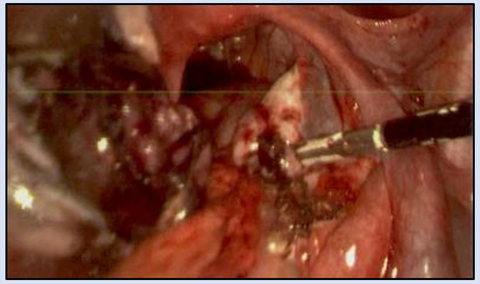
- Mature cystic teratoma
- Unremarkable cytological analysis of fluid



Clinical photograph 1 – Tracing origin of dermoid to right ovary



Clinical photograph 2 – Omental band wrapped around base of cyst



Clinical photograph 3 – Point of detachment from ovary

Discussion

In this highly unusual scenario, the omental band appears to have eroded through the pedicle, separating the cyst from the right ovary.

While cyst rupture and ovarian torsion are common causes of similar acute onset pain, it is important to remember that pathogenesis can be more complex, particularly when adjoining structures are involved.

As evident from the case notes and images, careful manoeuvring was required to bring the cyst into position for a mini laparotomy at suprapubic level. The aim was to prevent spillage of cyst content into the peritoneal cavity and reduce risk of peritonitis.

Conclusions

- Clinicians who decide to operate must be guided by the patient's symptoms and examination findings above all else
- Imaging modalities are certainly useful and can be valuable decision-making aids but must not replace clinical judgement
- If surgery is the best course of action this must not be delayed due to anticipated difficulty (ex: obesity, inconclusive imaging)
- A mini laparotomy is useful in that it reduces post operative recovery time and enables extraction of content while minimising spillage

**Identifying details not included for the purposes of confidentiality*