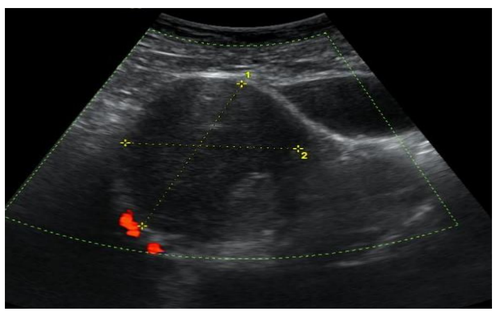
Unusual case of an extremely high Ca125: Rupture of endometrioma

Morakinyo K, Issa L, Mechery M
Glan Clwyd Hospital, BCUHB

Background:
The 36 year old patient, originally presented with heavy, irregular painful menstrual periods.
Examination: bulky fibroid uterus.

Pelvic scan: Fibroid uterus, smooth walled structure 8.8cm x 6.5cm, superior and to the right of the uterine fundus.
Impression: Endometriosis.



CA125: 240, MDT meeting concluded benign pathology likely, recommendation: diagnostic laparoscopy.

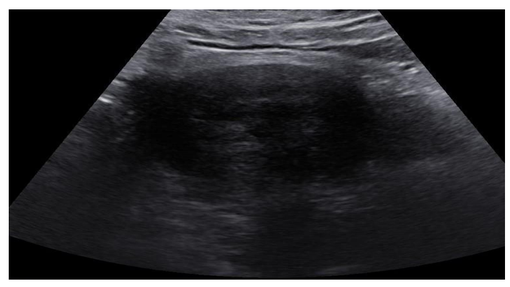
Diagnostic Laparoscopy 2017:
Omental adhesions, large right and left endometriotic cysts obscuring the uterus, extending to and adherent to pelvic sidewalls extending to and obscuring POD. Endometriotic spots of anterior lower abdominal wall. Left ovarian cyst also adherent to larger right ovarian cyst, small bowel adherent posteriorly.
Post operative plan made to refer patient to Arrowe Park endometriosis centre for further management.

Further management in Arrowe Park:
Examination confirmed large pelvic mass, and tenderness of posterior vaginal fornix suggested rectovaginal endometriosis. Decision made for laparoscopic excision of bilateral endometriomas, which would allow a more thorough assessment of the POD.

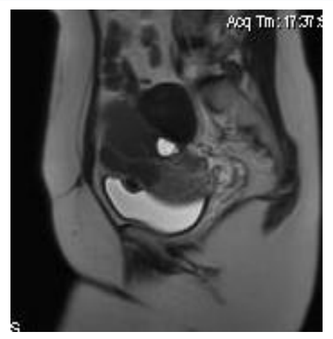
Laparscopic bilateral stripping of endometriomas and gas test:
Largest endometrioma on the right side drained, enabling to free both ovaries from respective ovarian fossae, posterior uterus and rectum. Bilateral stripping of endometriomas done. Residual endometriotic disease in both ovaries, decision made to conserve ovaries as patient wished to retain fertility. POD was left slightly obliterated, adenomyotic appearance of uterus. Disease of the rectum not addressed at the time, Gas test done end of procedure, showed no evidence of rectal injury. Marked post operative improvement of symptoms of pain.

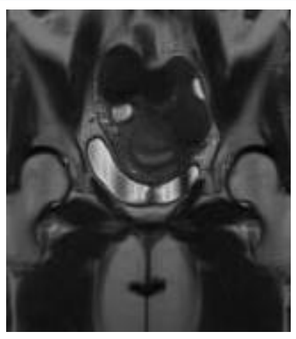
Recurrence:
Two years later, patient again presented with cyclical severe pelvic pain, menstrual dyschezia and pain during micturition, presumed to be due to recurrence of her severe endometriosis.
Abdominal exam revealed a tender 20 week-size pelvic mass, presumed to be the previously noted fibroid uterus.

Pelvic scan: Fibroid uterus. Multi loculated septate cystic mass demonstrated superior to fundus, typical of endometriomas, arising from ovaries bilaterally.



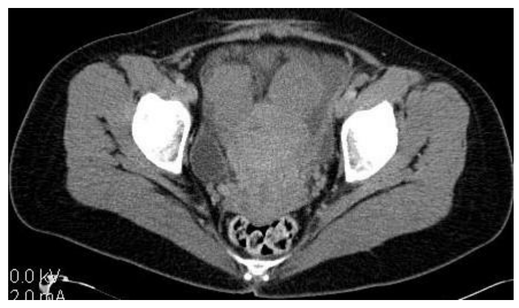
Pelvic MRI: Large complex pelvic cysts, measuring 10.3cm x 9.8cm. Showing characteristics of endometriomas. Intramural fibroid within posterior wall.
Patient referred back to Arrowe Park.





Acute onset severe pain:
Six months later, patient presented to A&E with sudden severe pelvic pain.
Raised Ca 125: 6032, CA19-9: 2874, LDH 310

Repeat Pelvic scan : Mild ascites, endometriomas remain, collectively measuring 81x91x83mm.
CT scan: Large complex bilateral adnexal pelvic cysts, ?endometriomas. Non-specific omental fat stranding, small upper abdominal nodule.



Conclusion:
Discussed at gynaecology oncology MDT. The features were suggestive of rupture endometrioma rather than malignancy, and recommended unilateral oophorectomy.
This highlights the importance of considering a leaking/ruptured endometrioma as a differential diagnosis, when young women with adnexal mass presents with extremely high Ca 125 and Ca19-9.

References:
1) Nisenblat V., Bossuyt P. M., Shaikh R., Farquhar C., Jordan V., Scheffers C. S., et al. Blood biomarkers for the non-invasive diagnosis of endometriosis. *Cochrane Database of systematic Reviews.* 2016;(5).

2) Bast R.C., Jr., Badgwell D., Lu Z., et al. New tumor markers: Ca125 and beyond. *International Journal of Gynecological Cancer*. 2005;15(6) Suppl 3:274-281.

3) Kurata H., Sasaki M., Kase H., Yamamoto Y., Aoki Y., Tanaka K. Elevated serum CA125 and CA19-9 due o the spontaneous rupture of ovarian endometrioma. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*. 2002;15(1):75-76.