

Case report: Secondary trophoblastic reimplantation following laparoscopic salpingectomy

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Case presentation

Patient history

- 35 year old
- para 4, spontaneous vaginal deliveries
- 1 previous laparoscopic right salpingotomy for tubal ectopic pregnancy 12 years ago
- Previous sexually transmitted diseases
- Known perihepatic adhesions

Initial presentation: 6/40 gestation based on LMP, with PV bleeding and lower abdominal pain.

- On day 0 – serum bHCG was 2614 IU/L
- TVUSS – empty intrauterine cavity with endometrial thickness of 20mm (Fig 1a), right corpus luteum (Fig 1b) and paraovarian cyst (Fig 1c).
- On day 6 – echogenic focus in cavity. On day 8 – left ectopic pregnancy, with a left adnexal clot (Fig 2).
- bHCG levels rose to above 5000IU/L
- Blood clots in the left adnexa

→ She had an uncomplicated **left laparoscopic salpingectomy**.

21 days post left laparoscopic salpingectomy, she represented with severe right sided abdominal pain. No associated fevers or nausea and vomiting, no vaginal bleeding or discharge. Not sexually active since discharge. Right sided peritonism, bimanual left adnexal tenderness with cervical excitation and clear watery vaginal discharge. Further investigations showed,

- Haemorrhagic ascites
- 3.5cm cystic lesion in the left adnexa
- Left ovarian vein thrombosis
- bHCG 3821IU/L

Despite being clinically stable, bHCG continued to rise to 4981IU/L. TVUSS showed heterogeneous mass medial to the right ovary suggestive of ectopic pregnancy (Fig 3b).

At diagnostic laparoscopy, trophoblastic lesion leaking on right tube ampulla (Fig 4), 1-2mm. 200ml of blood in the Pouch of Douglas. Left fallopian stump was short and appeared normal. → **Right salpingectomy** performed with excision of left tubal stump.

Histology confirmed the tissue from the right fallopian tube was secondary implantation of products of conception, with no features of a new ectopic pregnancy within the tube. Patient recovered well postoperatively and bHCG fell to 1779IU/L.

Discussion

Persistent trophoblastic tissue

Risk of persistent trophoblasts is significantly reduced post laparoscopic salpingectomy compared to laparoscopic salpingotomy. RCOG only recommends serial bHCGs post salpingotomy, as persistent trophoblasts can be detected by failure of serum bHCG to fall. Post salpingectomy, patients are advised to retake a home pregnancy test, 2 weeks after instead¹.

Post laparotomy – 0.6%	Post laparoscopic – 1.9%	
	Salpingotomy 4-11%	Salpingectomy 0.7-2.7%

Table 1: Incidence of persistent trophoblasts

Trophoblastic reimplantation

Uncommon complication of surgically managed ectopic pregnancies (1.0-1.9%). Sites: peritoneum (44%), omentum (32%), bowel (12%), uterosacral ligaments (4%), uterine body (4%)². Presentation: abdominal pain and PV bleeding, potential haemodynamic compromise. 7-51 days post surgery³. Risk: increases with ectopic pregnancy rupture, increased trophoblastic debris, spillage of trophoblastic tissue during extraction laparoscopically³. Methotrexate given to reduce risk of persistent trophoblasts is not protocol in the United Kingdom.

Bilateral ectopic pregnancy

Rare incidence of 1 in 725-1580 ectopic pregnancies⁴. Transvaginal ultrasound is a useful diagnostic aid. In more complex cases, diagnostic laparoscopy is gold standard.

Ovarian vein thrombosis

Presentation: abdominal pain, a mass and fevers⁵. It is more common on the right ovarian vein (70-90%). Associated with post partum period⁶. Less commonly after pelvic surgery – as in our case. Management guided by haematologists, balance risk of clotting vs bleeding, and consideration pre-surgery. Complications: inferior vena cava extension, pulmonary embolism

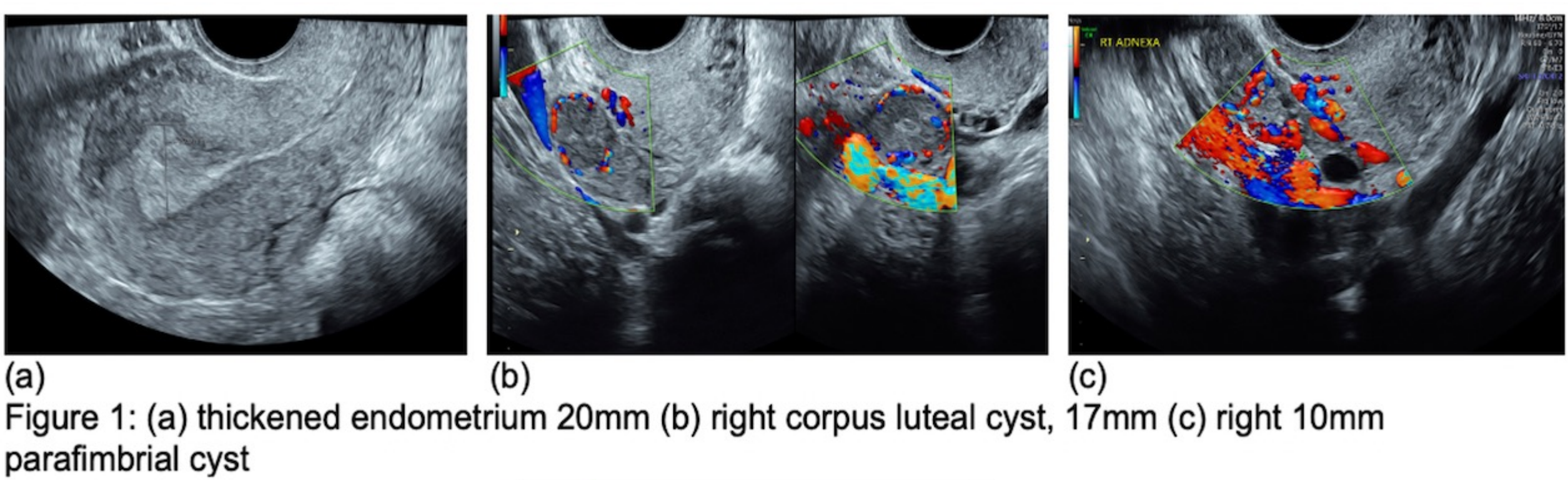
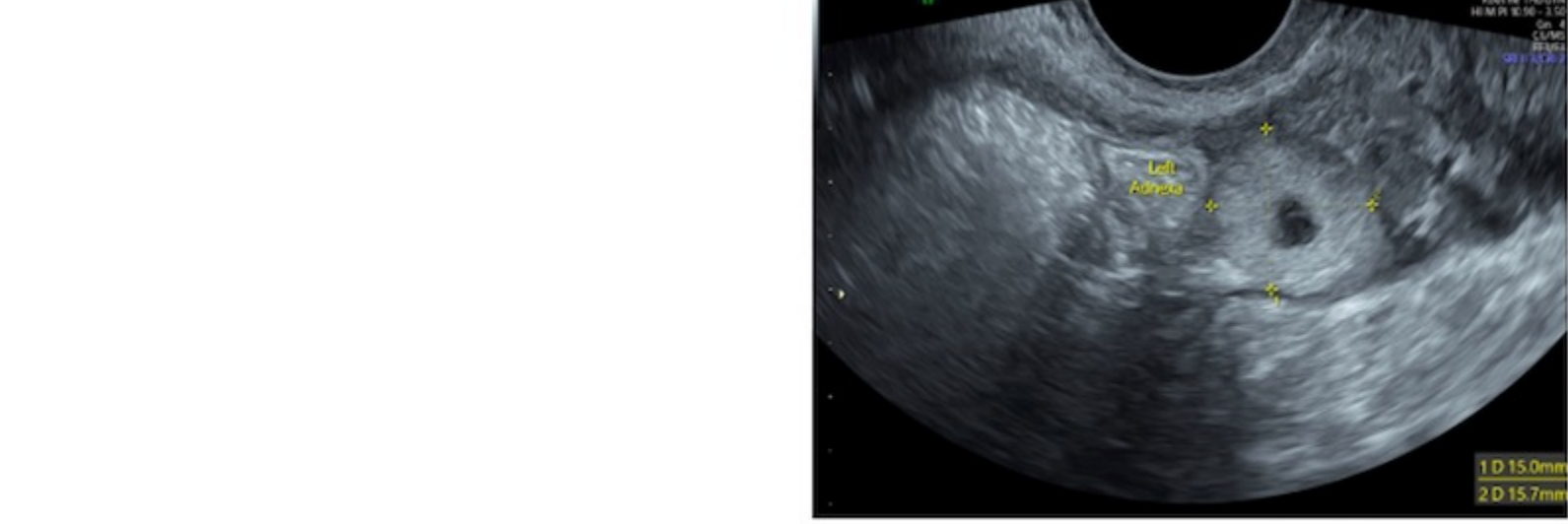
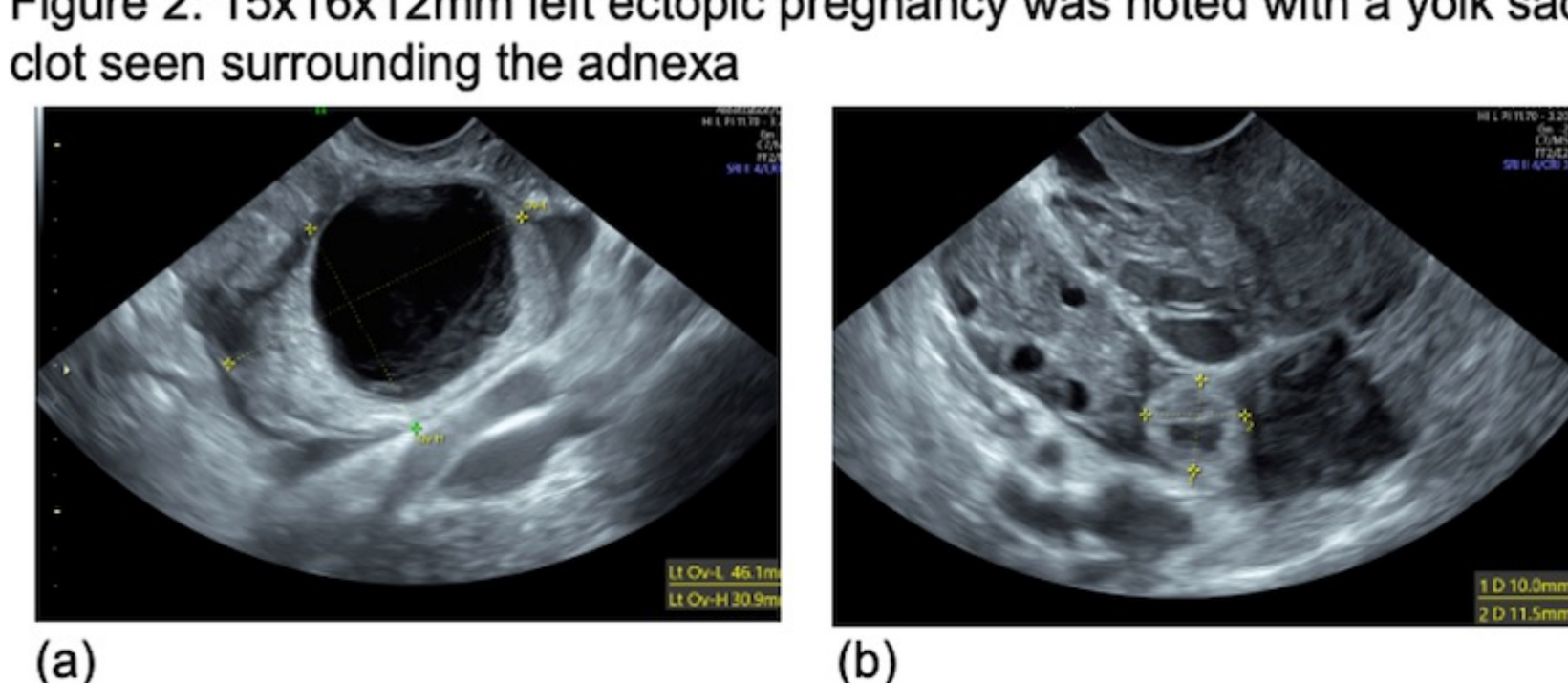
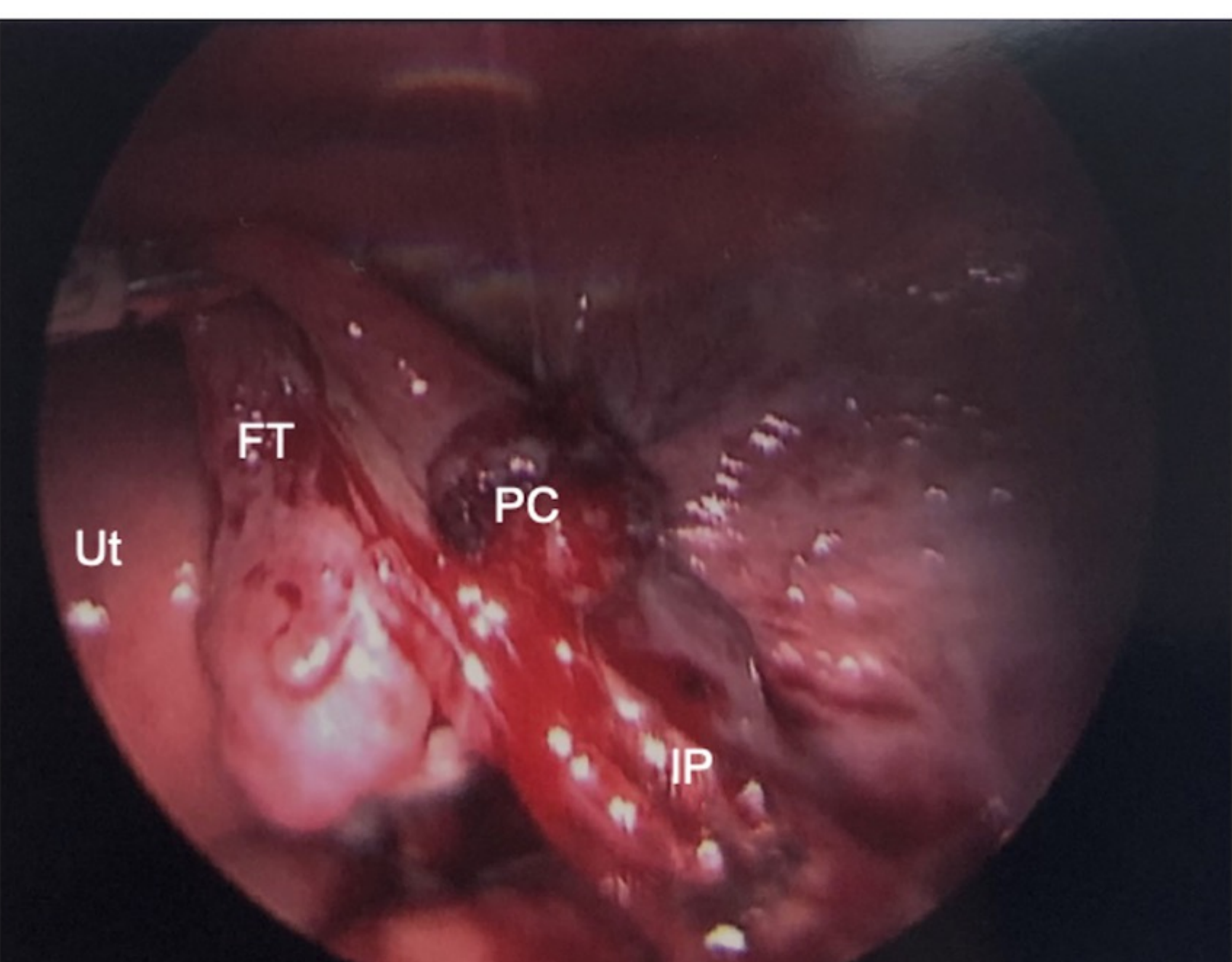
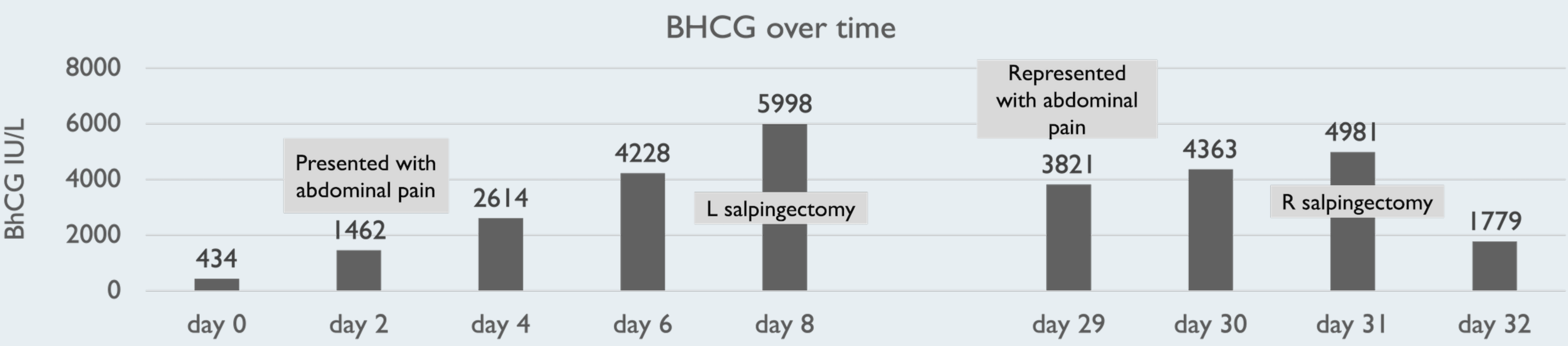


Figure 5: bHCG levels over the two admission periods, from day 0 to day 32 of the patient's journey

Learning points

- **Serial bHCG should still be considered post salpingectomy** → if there is any concern about the risk of persistent products of conception
- **Meticulous surgical techniques** minimise contamination during surgery → extensive aspiration of all blood clots and irrigation, careful extraction with a retrieval bag, minimal Trendelenburg positioning
- **Significant implications on fertility** → patients should be counselled on these risks, and family planning concerns be considered

References:
¹Diagnosis and Management of Ectopic Pregnancy. BJOG. 2016;123:e15–55. ²Schyum AC, Rosendal B-MB, Andersen B. Peritoneal reimplantation of trophoblastic tissue following laparoscopic treatment of ectopic pregnancy: A case report and review of literature. J. Gynecol. Obstet. Hum. 2019;48:213–6. ³Foulot H, Chapron C, Morice P, Mouly M, Aubriot FX, Dubuission JB. Failure of laparoscopic treatment for peritoneal trophoblastic implants. Hum Reprod. 1994;9(1):92–3. ⁴Fishback HR. Bilateral simultaneous tubal pregnancy. AJOG. 1939;37:1035–7. ⁵Harris K, Mehta S, Iskhakov E, Chalhoub M, Maniatis T, Forte F, et al. Ovarian vein thrombosis in the nonpregnant woman: an overlooked diagnosis. Ther Adv Hematol [Internet]. 2012 Oct;3(5):325–8. ⁶Prieto-Nieto MI, Perez-Robledo JP, Rodriguez-Montes JA, Garci-Sancho-Martin L. Acute appendicitis-like symptoms as initial presentation of ovarian vein thrombosis. Ann Vasc Surg. 2004 Jul;18(4):481–3.