

# a matter of judgement: part two

In the previous edition of *Surgeons' News*, Laurence Shaw presented the case of a 29-year-old nulliparous woman, who presented with five months' constant bleeding *per vaginam*. Subsequent laparoscopy demonstrated a 4cm left ovarian cyst

## answers to questions

### a. what was the likely nature of the cyst?

Simple cysts in regularly menstruating women are usually physiological. They may contribute to pain or tenderness if the ovary is tethered and cannot freely move as it changes in size through the ovulatory cycle. Normal follicles may reach 2 to 2.5cm diameter, so this one is slightly enlarged.

### b. was it likely to be related to the tenderness noted on her first visit?

Unlikely, as they were not ipsilateral. Although, by the time the laparoscopy was done, the left ovary was apparently 'normal', it could have been periovarian, and hence tender, when the first examination was undertaken.

### c. what is the management of choice?

A repeat scan after six weeks so that it is undertaken when the phase of her next cycle is different from that when she was laparoscoped. At review four months later she complained of amenorrhoea since her laparoscopy. A hormone profile was undertaken (Table 1).

**Table 1**

Investigations	
Luteinising Hormone (LH)	11.8 iU/l
Follicle Stimulating Hormone (FSH)	2.5 iU/l
Prolactin	440 miU/l

### d. in what way does the hormone profile contradict the history so far?

The LH:FSH ratio appears to be well over 3, suggesting polycystic ovaries despite her ovaries on scan and laparoscopy showing no such signs.

### e. what are her management options?

Management should be directed toward the patient's reproductive requirements. A six-month review is reasonable. If she wanted contraception then the combined oral contraceptive would also provide her with cycle control. Ovulation induction might be considered if she wants a pregnancy. In fact, she selected the oral contraceptive.

She re-presented over a year later, having discontinued the oral contraceptive, complaining of amenorrhoea, bloating, frequency and lethargy. Examination confirmed a 20-week abdominal mass arising from the pelvis. Ultrasound scan demonstrated a multicystic mass. At laparotomy a 35cm multicystic left ovarian cyst was enucleated. An omental biopsy was also taken. Histology revealed a well differentiated Sertoli Leydig tumour with no malignant cells in either peritoneal washings nor the omental biopsy. A second look laparoscopy was taken at three months. This showed the left fallopian tube adherent to the ovary. Laparoscopic adhesiolysis and ovarian biopsy were undertaken. The biopsy showed a residuum of Sertoli Leydig tumour but peritoneal washing was again negative.

### f. bearing in mind her desire for a pregnancy, what are the treatment alternatives?

If the histology had been the more common adenocarcinoma, the patient's prognosis would be considerably improved by total abdominal hysterectomy, bilateral Salpingoöphorectomy omentectomy and chemotherapy. This germ cell tumour behaves differently so left Salpingoöphorectomy, or even further local excision at the biopsy site thereby conserving the left tube and ovary, might be considered if the

patient accepts the probability of future recurrence. The reason for the conservative surgery is to provide an opportunity to achieve a pregnancy. The patient underwent left Salpingoöphorectomy, histology showed no residual tumour. She remained free from recurrence until 17 months later when she presented once again with an 18-week pelvic mass.

#### g. What are the treatment options?

Being the second time she has presented, there seems pressure to take a more radical approach. However, she is trying for a pregnancy and the histology is unchanged from previously. The right ovary could be removed but enucleation had been successful on the left.

It was agreed that, if a conservative approach was undertaken again, she would accept more aggressive management of her fertility as she had been trying unsuccessfully for a pregnancy for two years. She underwent laparotomy, ovarian cyst enucleation and omental biopsy. *In vitro* fertilisation was then undertaken. The first cycle resulted in a pregnancy that progressed uneventfully. Delivery of a healthy 3.2kg male was uncomplicated.

Six months after delivery she presented again with an 18-week mass.

#### h. is conservative surgery again an option? and, i. is radical surgery long overdue?

Sertoli Leydig tumours are very rare tumours of the ovary. Their growth habit makes them amenable to conservative surgery. On one hand, some would have advocated radical surgery early at first presentation, whilst others might have considered the final operation too radical.

She opted for total abdominal hysterectomy right Salpingoöphorectomy and omentectomy. The histology confirmed the same pathology as previously with no evidence of metastasis. All peritoneal washing was negative.

- Did we sail too close to the wind? Was the conservative approach too risky for the benefits?
- Were we too eager to undertake the radical surgery at the end?
- Was this a balanced process with consultation at every stage, empowering the patient with a part in decision-making?

The final decision to undertake the pelvic clearance was thoroughly discussed. The local recurrences were reducing effective ovarian mass with each surgical attack, so the patient's suggestion that we undertake further conservative surgery with view to her trying for another pregnancy was unrealistic as it was likely that she would have another recurrence in the interim. Whilst the histology each time confirmed the well-differentiated nature of the tumour, there was no guarantee that progression might not occur.

In stage I Sertoli Leydig cell tumors, only those of intermediate differentiation (11%), poor differentiation (59%) and those with heterologous elements (19%) have been clinically malignant. So deterioration in the differentiation would have regrettable consequences. The patient concluded that now she had achieved a child she was less keen to take risks. So she opted for the radical surgery.

In conclusion, the optimum solution in relation to minimising recurrence may not be the most appropriate for a particular patient. The reproductive drive is very strong and patients may be prepared to take additional risk of recurrence to secure a chance of pregnancy. In this case the patient achieved that and the infant turned out to be the driver toward the decision for the more definitive treatment. She has now been free of recurrence for five years.

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