

## Tubal endometriosis mimicking an ectopic pregnancy

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### Case report

A 34 year old lady presented with a one year history of primary infertility, and irregular cycles. Her luteal phase progesterone was low, consistent with anovulation. Her hormone profile was otherwise normal. A semen analysis was normal. A pelvic ultrasound showed polycystic ovaries and hysterosalpingogram revealed a normal uterine cavity with free fill and spill from both tubes. She was commenced on clomiphene. Follicular tracking and luteal phase progesterones confirmed ovulation on treatment. As she failed to conceive after 6 months of treatment, she was booked for laparoscopic ovarian drilling. At laparoscopy, the surface of the right tube was swollen by a bluish mass, measuring 2 by 2 cm, mimicking an ectopic pregnancy. There was evidence of yellow- brown endometriotic patches on the uterosacral ligaments and in both ovarian fossa. Dye test confirmed luminal patency. The routine preoperative pregnancy test was negative. Hence a diagnosis of an atypical endometriotic deposit on the tube was made. Ovarian drilling was done as planned. A first day postoperative serum beta-HCG was negative.

### Discussion

Endometriosis is a frequently made diagnosis during laparoscopy in infertile patients, with an incidence of 20 -40% (Mahmood and Templeton). The common sites are the posterior leaf of the broad ligament, ovaries and ovarian fossa, uterosacral ligaments, and sigmoid colon. Endometriosis usually causes disruption of the normal tubal anatomy by adhesions to the serosal surface of the tube, which impairs tubal mobility, inhibiting ovum pickup and transport, causing infertility.

A large endometriotic deposit directly on an otherwise normal looking tube, as noted in our patient is rare, and is similar in appearance to a tubal ectopic. (see figure 1). Fortunately, of the risk factors for ectopic pregnancy, endometriosis is one of the rarer associations. (Leroy and Regnier). This is because endometriosis, unlike pelvic inflammatory disease, rarely damages the endosalpinx. (Bowman and Cooke). Indeed in this case the tubes were patent to dye.

This case illustrates the possibility of a diagnostic confusion arising during a laparoscopy if done in early pregnancy . Had this been a diagnostic laparoscopy for a suspected ectopic , the endometriotic deposit on the tube could easily have confused operators, leading to an unnecessary salpingectomy. Operators should therefore be aware of the differential diagnosis of a swollen blue mass on the tube. However under the circumstances of this case, where elective surgery was being performed, a pregnancy test was negative and endometriosis elsewhere in the pelvis was detected, the diagnosis of tubal endometriosis was made without difficulty.

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## Cutaneous Tuberculosis in Pregnancy: Case Report

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## **Case report**

A 32-year-old female pharmacist of Indian origin, living in the U.K. since 1984, booked for antenatal care at thirteen weeks, having had one first trimester miscarriage in the past. At booking she complained of having had backache from about 8 weeks into the pregnancy, for which she had seen an osteopath. She was referred to physiotherapy, the pain being attributed to musculoskeletal pain related to pregnancy. By 18 weeks she was using crutches as the pain got worse. Her anomaly scan at 20 weeks was normal, as were her booking blood results.

At 27 weeks she complained of continuing backpain together with increasing discomfort of the right upper limb. She was thought to have sciatica and started acupuncture by private arrangement. At 27 weeks she weighed 59 kg and at 31 weeks was noted to have lost weight 3kgs since.

She went into spontaneous preterm labour at 34 weeks and delivered a male infant weighing 2040 gm. She had a third degree tear and postpartum haemorrhage of 1200ml. She was transfused two units of blood, and the haemoglobin was 9.2 on discharge. She presented to the hospital 2 weeks later with a pyrexia of 37.8°C, and rigors. She had felt unwell with a loss of appetite for 5 days. On examination, her pulse rate was 116, the chest was clear, breast examination showed no evidence of mastitis and there were no signs of deep vein thrombosis in either calf. The perineum had healed well and there was no abnormal vaginal discharge on speculum examination. The uterus had involuted appropriately. There was some lower abdominal tenderness and she was commenced on intravenous antibiotics (cefuroxime and metronidazole) on a presumptive diagnosis of endometritis or urinary tract infection.

A low vaginal swab and high vaginal swab showed normal flora and a mid stream urine culture showed heavy mixed growth. Blood test showed a normal WBC count, but anaemia with a haemoglobin of 8.9 and a C- Reactive protein level raised at 52. She continued to have a swinging pyrexia for four days, with temperatures reaching 39.5 ° C. The antibiotics were changed to Tazocin and metronidazole, after discussion with the consultant microbiologist, but without effect. Blood cultures were negative. The clinical situation was reviewed after four days and she was noted to have swollen erythematous non-tender papulonodular lesions with surrounding scarring on the pulps of the index and middle fingers of her left hand. These cutaneous lesions had been present for 6 weeks, and were thought to be a reaction to the detergent she had been using. Neurological examination revealed reduced motor power of the

right hip flexors 4/5 and diminished sensation on the right hip over L1 distribution. Systemic examination was otherwise unremarkable.

An ultrasound scan of the abdomen and pelvis showed a predominately anechoic lesion in the right upper retroperitoneum displacing the right kidney anteriorly. This suggested a retroperitoneal collection. Liver, kidneys and spleen were normal. The uterus was normal with a thin endometrium. A chest X-ray done showed bilateral diffuse nodular shadowing in the mid and lower zones, which was reported as possible miliary tuberculosis. A subsequent CT scan showed a right psoas abscess and a spinal epidural abscess at L2 and L3 spine. An MRI showed a large right sided psoas abscess extending from L2 to L5 (anterior to the right sacroiliac joint) The abscess appeared to originate at L2/L3 disc level but there was substantial involvement of the L3 body, which was partially collapsed, giving rise to a short scoliosis. Thecal compression was noted at L2/L3 level.

A provisional diagnosis of military tuberculosis with vertebral osteomyelitis, psoas abscess and cutaneous tuberculosis was reached. A CT guided aspiration of fluid from the retroperitoneal collection was sent for AFB microscopy and culture and skin biopsies were taken from the finger lesions. Mycobacterium tuberculosis was isolated from culture of both the aspirate and skin biopsy. Moreover, histology of the skin biopsy showed a necrotising epithelioid cell granuloma in the dermis. Langhans giant cells were present, consistent with a diagnosis of tuberculosis.

She was commenced on antitubercular treatment with INH, rifampicin, pyrizinamide, and ethambutol. Prednisolone was also started. Her pyrexia settled and she was discharged from hospital. She is still being followed up and she has been afebrile for 3 months now.

## **Discussion**

This case highlights the difficulty of making a diagnosis of tuberculosis when presenting with symptoms consistent with pregnancy complications.

The initial symptom of backache is very common in pregnancy. 50% of women report having backache at some time during pregnancy and 30% find it a severe problem<sup>1</sup>.

Possible causes of backache in pregnancy include an increased lumbar lordosis<sup>2</sup>, increased levels of relaxin<sup>3</sup> which softens the capsules and ligaments of the pelvic joints, so that they are less stable, and increased water retention within the tissues of the joint

capsules. The pain may radiate to the buttocks and thighs and can be aggravated by prolonged standing or walking. Posterior pelvic pain, which is specific to pregnancy, occurs in the sacroiliac joint region, gluteal region and occasionally the symphysis pubis region and patients may find it difficult to move the leg forward during ambulation<sup>1</sup>. Thus it is easy to see why the symptoms from lumbosacral tuberculosis is confused with pregnancy related backpain. All patients complaining of these symptoms should be approached with a high level of clinical suspicion, especially if they belong to ethnic minorities known to have a high prevalence of tuberculosis and subjected to a thorough examination to distinguish between the two. Backache is common in the third trimester but backache in early pregnancy should be approached with caution. In backpain of pregnancy the neurological examination remains normal. Dural tension signs (e.g. Positive straight leg-rising test) are negative. This patient presented with a puerperal fever which was unresponsive to standard antibiotic regimens. It is well recognised that peripartum tuberculosis is an important differential diagnosis of postpartum fever<sup>4</sup>. A recent study has shown that 93% of patients with peripartum tuberculosis had extrapulmonary manifestations<sup>4</sup>. Hence clinicians need to be aware that a high degree of suspicion is essential to making a diagnosis of TB. Multidisciplinary team involvement with input from medicine, radiology, neurology along with obstetrics is essential in early diagnosis and management of these cases. Tuberculosis is a serious problem in both developing and developed countries. However cutaneous tuberculosis is rare and has considerable morphological variability<sup>5</sup>. As far we are aware cutaneous TB has not been described in pregnancy before. Jelly like nodules appear which may go on to ulcerate and cause extensive scarring. It is often confused with various cutaneous disorders and other granulomatous processes of the skin<sup>5</sup>. This patient initially presented with lesions in her fingers which was confused as allergic reaction but later skin biopsies proved cutaneous TB. Standard chemotherapy is very effective, hence the outcome is good.

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