

## Unusual Cause of infertility

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### ABSTRACT

Genital tract tuberculosis is an unusual cause of infertility. It affects a young woman with an immunodeficiency. The increase in the level of the CA 125 marker can be found. Ultrasound, CT scan and magnetic resonance imaging (MRI) are not specific. We report a new case of fallopian tuberculosis revealed by amenorrhea and chronic pelvic pain.

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### Introduction

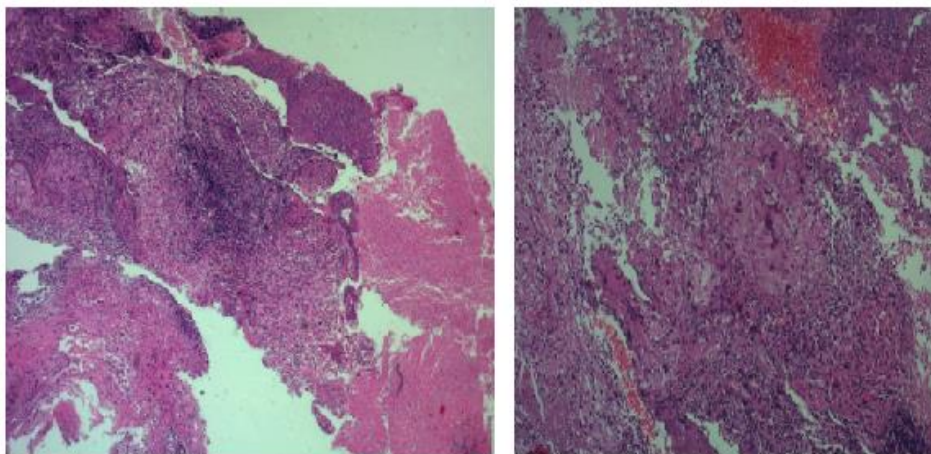
Tuberculosis of the fallopian tube is one of the most common sites of tuberculosis pelvic inflammatory disease. The symptoms are often infertility or bleeding. It results from spread from an extra genital source, usually via hematogenous dissemination. The pelvic ultrasound and MRI are not specific. It helps to suspect the diagnosis and to search any associated malformations. The medical treatment against tuberculosis is very effective. The consequences on the fertility are severe and not reversible.

### Observation

A female patient at 20 years old, presented with an amenorrhea since six months, was referred to characterize a left adnexal masse. A pelvic MRI was performed. T2 weighted showed a left adnexal complex cystic masse with sausage-like shapes and an irregular thick wall, enhanced with contrast (fig.1 a, b). The left ovary is taken in the masse. Bilateral iliac node was associated with central necrosis.



Figure n° 1. Coronal T2-weighted image (a) and axial T1-weighted image with contrast (b) showed left adnexal complex cystic masse with sausage-like shapes and an irregular thick wall, enhanced with contrast, correspond to a fallopian dilatation (↗). The left ovary is taken in the masse. Bilateral external iliac lymph node was associated with central necrosis(▼).



**Figure n°2. Granulomatous inflammatory rearrangements made of epithelioid cells with presence of plaques of caseous necroses.**

A biopsy guided by ultrasonography of the inguinal node was performed. The histological study showed typical caseous granulomatous lesions with giant epithelioid cells (figure 2 a, b)

### Discussion

Genital tract tuberculosis is a chronic disease that often presents with low grade symptomatology. Infertility is the most frequent clinical presentation (43-74%). Other clinical presentations include oligomenorrhoea (54%), amenorrhoea (14%), menorrhagia (19%), abdominal pain (42.5%), dyspareunia (5-12%) and dysmenorrhoea (12-30%). The tumor form of genital tuberculosis accounts for 15% of all pelvic tuberculosis sites. It can affect all women with a predominance of young women between 20 and 30 years, with rising incidence in industrialized and developing countries partly as a result of its association with HIV infection [1]. The fallopian tubes are involved in 90–100 % cases with congestion. It can be isolated or mostly associated with peritoneal involvement. It has occurred secondary to

pulmonary or extra pulmonary tuberculosis like gastro-intestinal tract, kidneys, skeletal system, meninges and miliary tuberculosis, through hematogenous and lymphatic route. Reportedly about 9 per cent of all extra-pulmonary tuberculosis cases are genital tract TB. Direct contiguous spread from nearby abdominal organs like intestines or abdominal lymph nodes can also cause genital TB. Histology demonstrates the typical caseous granulomatous lesions with giant epithelioid cells.

The increase in the level of the CA 125 marker is found. Its dosage is not a determining factor in differentiating pelvic tuberculosis from ovarian cancers. On the other hand, its value lies mainly in the oversight of patients under antibacillary therapy [2].

Ultrasound, CT scan and magnetic resonance imaging are not specific. The fallopian tuberculosis manifests as a solid and cystic adnexal mass, as a thin-walled C- or S-shaped tubular cystic structure, hyper intensity on T2-weighted images and hypo intensity or hyper intensity (if hemorrhagic fluid is present) on T1-weighted images and the presence of enhancing intra luminal masses may mimic tubal cancer, chronic salpingitis, or pseudocarcinomatous hyperplasia. However, thickened tube folding due to inflammation can be mistaken for enhancing mural nodules, and make it difficult to differentiate fallopian tuberculosis and tubal carcinoma. Sometimes a bilateral hydrosalpinx with an enlarged ovary

associated with ascites. The lesion can infiltrate neighboring fat or even invade it with fistulization to the neighboring organs including the rectum [3]. At a late stage dense adhesions with the uterus or other adjacent organs can be seen, as fibrotic tissue is formed. Lymph nodes are also seen, sometimes with necrotic centre.

The World Health Organization in its recent guidelines recommended daily therapy of rifampicin (R), isoniazid (H), pyrazinamide (Z) and ethambutol (E) for 2 months followed by daily 4-month therapy of rifampicin (R) and isoniazid (H). Alternatively 2 months intensive phase of RHZE can be daily followed by alternate day combination phase (RH) of 4 months with significant side effects and poor compliance [4]. Prognosis for fertility is poor. The in vitro fertilization is the only hope for tubal disease in the absence of endometrial damaged [5].

### Conclusion

Genital tuberculosis is a rare and rarely cited form of extra-pulmonary tuberculosis. It is a serious condition that affects women of low economic level, its seriousness being linked to the gynecological squeal, to the infertility that it entails. The importance of early and systematic screening in women with menstrual cycle disorders or infertility should be warned, especially in endemic countries.

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