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Co-Existing Infertility Pathologies : Double Trouble

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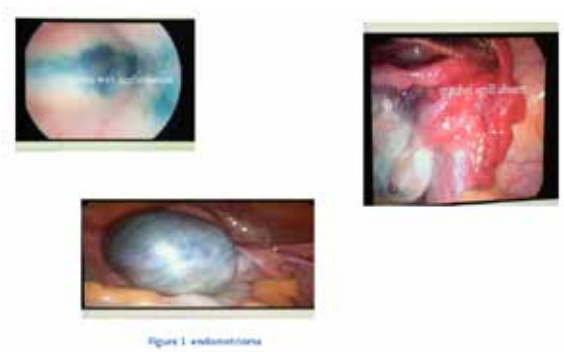

A rare case report

INTRODUCTION:

Endometriosis is a common disease affecting women of reproductive age with a very diverse range of presentations that include pelvic pain, dysmenorrhea, dyspareunia or subfertility. The common sites of involvement in decreasing order of frequency are the ovaries (where it is described as a 'chocolate cyst'), pelvic peritoneum, deep pelvic sub peritoneal spaces, intestinal system, urinary system, scar endometriosis, and thoracic endometriosis.

India is a country with one of the highest burden of tuberculosis, accounting for one fifth of the global incidence annually. Genital tract TB is a chronic disease that often presents with low grade symptomatology and very few specific complaints. Presenting symptoms are generally varied; infertility being the most frequent clinical presentation (43-74%). Other clinical presentations include oligomenorrhoea (54%), amenorrhea (14%), menorrhagia (19%), abdominal pain (42.5%), dyspareunia (5-12%) and dysmenorrhea (12-30%).

The diagnostic dilemma arises because of the varied clinical presentation of the disease confounded by diverse results on imaging, laparoscopy, histopathology and a mixed bag of bacteriological and serological tests, each of which has its limitation in diagnostic sensitivity and specificity.

Primary and secondary infertility are the most common presenting symptoms in patients with pelvic tuberculosis as well as endometriosis. But co-existence of both the pathologies has often been overlooked, as can be studied from relatively few case reports regarding the same. High index of suspicion is required to diagnose co-existing endometriosis and tuberculosis in an infertile woman, as either one being left untreated may hamper results of surgery and assisted reproductive techniques.

We report an interesting case of pelvic endometriosis with co-existing tuberculosis.

CASE REPORT:

A 24-year-old woman presented with primary infertility for 2 years. She gave history of symptoms suggestive of congestive dysmenorrhea and also had prolonged cycles with normal flow. There was no history of decreased appetite, weight loss, fever, dyspareunia, or vaginal discharge.

Speculum examination showed a normal vagina and cervix.

Bimanual examination revealed a normal-sized retroverted, rather fixed uterus deviated to the right side, with a cystic, nontender mass with restricted mobility in the left fornix, measuring approximately 5 X 4 cm. The pouch of Douglas was free.

The CA-125 was 48 IU/L, which was marginally raised. All routine and special investigations were within normal limits.

Ultrasonography confirmed the findings of bimanual examination. The cyst was unilocular with acoustic enhancement and diffuse homogeneous ground-glass echoes, confirming an endometriotic cyst. It showed a normal Doppler flow.

Patient was posted for the laparoscopic excision of endometrioma. Prior to laparoscopic excision, a diagnostic hysteroscopy was performed, and revealed an apparently normal uterine cavity.

On laparoscopy, there was a left ovarian endometrioma, and a cystectomy was perfomed, leaving behind as much ovarian tissue as possible. There were few endometriotic spots on the utero-sacral ligaments, which were fulgurated.

The right fallopian tube failed to show a spill on laparoscopic chromopertubation, necessitating a hysteroscopic tubal cannulation.

Apart from the above mentioned findings of left endometrioma and a right fallopian tubal block, there were small tubercles, 4-5, over the pelvic peritoneum.

Blocked right fallopian tube, with tubercles over the pelvic peritoneum, prompted an endometrial biopsy for TB PCR-RNA. Hysteroscopic tubal cannulation was done in the same sitting and free spill was demonstrated post procedure.

The histopathology of the ovarian cyst confirmed endometrioma, and the endometrial biopsy for TB PCR-RNA was positive.

The patient was put on anti-Koch's therapy (AKT), and was

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also given gonadotropin-releasing hormone (GnRH) analogues for endometriosis. One year after completing AKT, she conceived by ovulation induction (Gonadotropins), with timed intercourse.

DISCUSSION

The global prevalence of genital TB is estimated to be 8-10 million cases, with rising incidence in industrialized and developing countries partly as a result of its association with HIV infection2. Reportedly about 9 per cent of all extra-pulmonary tuberculosis cases are genital tract TB, and India contributes largely to this population of genital tuberculosis.

Endometriosis is an estrogen-dependent disease that affects between 10%–15% of reproductive aged women. There is a well-established association between endometriosis and infertility; however, it appears to be multi-factorial involving mechanical, molecular, genetics, and environmental causes.

Coexisting endometriosis and tuberculosis of tubes and ovaries may alter clinical and radiological features, leading to difficulty in diagnosis. Such a combined pathology has a greater impact on fertility and may lead to a dilemma in diagnosis and management because of the unusual clinical and surgical picture. Early diagnosis by surgical exploration, as well as adequate treatment, can improve fertility (ref).

Infertility clinics in India experience a huge load of women with genital tuberculosis, endometriosis, fibroids, premature ovarian failure, male infertility, etc. It is challenging to diagnose co-existing pathologies, as confirmation of one entity apparently stops us from looking further into another probable co-existing pathology. Nevertheless, treating underlying pathology is the mainstay of managing infertility, when the causative factors are known.

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