

PLACE OF LAPAROSCOPY IN PELVIC TUBERCULOSIS IN INFERTILE WOMEN

By

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Introduction

Tuberculosis has plagued human beings through out recorded archeological history. Genital tuberculosis as a cause of sterility has received little attention during the last decade presumably because its incidence has markedly decreased in the developed countries. It is relatively common in developing nations of Africa and Asia, particularly India. Most cases are latent with no obvious symptoms and the infection can be revealed only by specific diagnostic procedures. TB salpingitis with adhesions is the responsible factor for chronic pelvic pain and infertility in many cases.

In today's practice laparoscopy has become an eye with binocular vision of a gynaecologist. Laparoscopy plays a vital role alongwith other investigations to elucidate the exact diagnosis of pelvic tuberculosis in the infertile female. Hence, it is now possible with laparoscopy to diagnose genital tuberculosis prior to development of symptoms or before, irreversible damage to the fallopian tubes occurs.

Material and Methods

A study of 500 infertile women attending the 'Infertility Clinic' from January 1981 to December 1984, was carried out

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in Grant Medical College and Sir J.J. Group of Hospitals, Bombay, India. The presumptive diagnosis of genital tuberculosis was based on detailed history, clinical examination and laparoscopic findings, Tuberculosis was confirmed on histopathological examination of the endometrium and surgical specimens removed at the time of laparotomy. Other investigations carried out included complete blood count, E.S.R. Mantoux test and X-ray of the chest. Tuberculosis of the genital tract was revealed in a few patients who were subjected to hysterosalpingography.

Table I shows the incidence of genital tuberculosis in infertile women in this study. Our incidence of 9% correlates with that of malkani's i.e. 9.3 in the study of 2581 infertile patients in India 1975.

TABLE I

Total No. cases	No. of cases diagnosed as Genital TB	Incidence
500	45	9%

The relatively high incidence of genital TB in our infertile patients can be attributed to the fact that the incidence of this communicable disease is high in general population particularly in children. The Indian Council of Medical Research reported an incidence of 7 per 1000 children in the 5 to 14 years of age group (1957). This also explains the higher incidence of genital tuberculosis in primary infertility

as compared to secondary infertility patients as seen in the next table.

There were 37 cases of primary and 8 secondary infertility.

The highest incidence of genital tuberculosis was in the 19 to 25 age group (57.7%), which is the period of maximum fertility. Incidence of genital TB in the age group of 26 to 30 years was 28.8% and in the age group of 31 years and above it was 13.5%.

In this series, 6 out of 45 cases had the primary focus of TB in the lungs. In Sutherland's study of 325 infertile women pulmonary TB was present in 33.2% of the cases (1965).

methylene blue instillation mottled blue uterus was seen in 8 cases, the tubes were thickened and rigid in 6 cases. Surprisingly, there was no evidence of genital tuberculosis on Laparoscopy in 3 of the 45 patients in this study.

The incidence of TB endometritis was 22.2% in our series i.e. 10 of the 45 cases had TB endometritis on histopathological examination of the endometrium. Once TB endometritis develops, the chances of future pregnancy are very remote. It is interesting however to note that in 3 of these 10 patients the pelvic findings were normal on laparoscopy.

TABLE II
Presenting symptoms of infertile women with Genital TB

Symptoms	No. of cases	Percentage
1. No symptoms	7	15.50
2. Menstrual disorders (menorrhagia, metrorrhagia, and hypomenorrhoea)	12	26.70
3. Pain in lower abdomen	11	24.40
4. Dysmenorrhoea	9	20.00
5. Secondary amenorrhoea	3	6.70
6. Leucorrhoea	3	6.70

In this study 15.5% of the patients had no other complaints other than the inability to conceive. Menstrual complaints like menorrhagia/metrorrhagia/hypomenorrhoea, were present in 26.7% of the cases. The other symptoms were lower abdominal pain in 24.4% dysmenorrhoea in 20% and leucorrhoea in 6.7% of the cases, 3 of the 45 patients i.e. 6.7% of the cases had secondary amenorrhoea.

On laparoscopy pelvic adhesions were seen in 23 patients, tubercles were present in 17 cases and 16 patients had hydrosalpinx and blocked tubes. On

Management

Chemotherapy

- (a) rifampicin—10 mgm/Kg daily.
- (b) Isonex—300 mg daily.
- (c) Ethambutol—15 mg/Kg daily.

Surgical treatment after chemotherapy

- (a) Fimbriolysis and adhesiolysis—2 cases.
- (b) Salpingostomy—2 cases.

Patients were treated by chemotherapy. The drugs given were Rifampicin (10

mgm/Kg body weight) and Isoniazid (300 mg) and bacteriostatic Ethambutol for 9 to 2 months. Ethambutol was discontinued in this study after 2 months of therapy.

Only 4 patients were subjected to surgery. One of the two patients who was subjected to fimbriosis and adhesiolysis conceive within 3 months of surgery. Salpingostomy was carried out in two patients.

TABLE III
Genital tuberculosis and pregnancy

Total No. of infertile cases with genital tuberculosis	45
Total No. of pregnancies after treatment	6
Pregnancy rate	13.3%

In our study of 45 cases, 6 patients conceived following treatment. Thus giving a pregnancy rate of 13.3%. One had a full term normal delivery and the other patient aborted at 3 months of gestation. The other 4 patients were let to follow-up after the pregnancies were confirmed.

Discussion

Tuberculosis of the female genital tract is almost always secondary to infection elsewhere i.e. lungs, kidneys or bones and joints. It is suspected that involvement is by haematogenous spread as bacillaemia may persists for week. It is also possible for pelvic organs to become infected through the lymphatics, peritoneal implants or by direct extension.

The exact diagnosis can be only made by Annoculation of laboratory, animal and histopathological examination. How-

ever, a presumptive diagnosis of tuberculosis can be arrived at with the following criteria.

1. Family or past history.
2. Chest X-ray showing healed lesions, however normal X-ray findings do not rule out Genital TB.
3. Positive tuberculin test, here again a negative test does not rule out genital TB.
4. Hysterosalpingography.
5. Histology of endometrium or surgical specimen showing caseation, calcification, ulceration, fibrosis, hylanization or tubercules.

Today laparoscopy is the only diagnostic aid for the early diagnosis of genital TB in infertility, since, immunological studies are at a stage of infancy, and it lays a foundation for a bright future for early diagnosis of genital TB which has so far defied bacteriological diagnosis.

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