

GENITAL TUBERCULOSIS — A BAFFLING DISEASE

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SUMMARY

Genital tuberculosis continues to be a baffling disease for gynaecologists. The vagaries of presentation and focal pathology in different parts of genital tract makes it notorious for evading diagnosis. The present data deals with varied presentation. Common age group was 20 to 30 years. Most of the patients were infertile (70.68%). Some (5.17%) did present as ectopic pregnancy or even genital malignancy (6.89%). In 6.89% cases endometrial tuberculosis was in association with leiomyomas. The diagnosis could be made by using all available modalities of investigations.

Genital tuberculosis continues to be a baffling disease for gynaecologists. The vagaries of presentation, focal pathology in different organs etc make it notorious for evading diagnosis. The symptomatology and the clinical picture is so variable that single signs-symptoms or investigations alone may not be diagnostic. Unless specially looked for the diagnosis is often missed. On the other side it may come as a big surprise while dealing with some other condition. Moreover it is believed that there may not be any clinical evidence that the fallopian tubes are involved, most common site of involvement (Agarwal et al 1987 and Klein et al 1976) but minimal or subclinical tuberculosis is

present. The present data deals with 58 cases of genital tuberculosis with varied presentations.

Material and Methods

This data is from department of Obstetrics and Gynaecology of Mahatma Gandhi Institute of Medical Sciences Sevagram, Eastern Maharashtra, India. This is a rural medical institution in Central India where tuberculosis is not a uncommon disease. The incidence of endometrial tuberculosis diagnosed by histopathology alone in cases of primary infertility is around 5.5%. The present data is analysis of 58 cases of genital tuberculosis. These cases presented with various types of clinical picture. Diagnostic modalities used were mainly histopathology with quite a few bacteriological cultures for mycobacterium tuberculosis. However

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radiology was responsible for helping in diagnosis in some cases. In some cases with strong clinical evidence (surgical) sandwich ELISA test (Reddy et al 1984) which was being tried for diagnosis for extra pulmonary tuberculosis (Ghoghane 1987), was used.

Observations

Most of the patients of this study were between 20 to 30 years of age. Many of them were infertile but some were

grandmultipara also (Table I). Many patients presented with primary infertility as the main problem (Table II). However the diagnosis came as a surprise in some cases where work up was being done with clinical diagnosis of leiomyoma, ectopic pregnancy or even malignant ovarian tumour (Table III). There were 3 cases of cervical tuberculosis, clinical diagnosis was cervical malignancy. (One proliferative type and two ulcerative type).

TABLE - I
AGE AND PARITY OF PATIENTS

	<20	20-30	31-40	41-50	>50	Nullipara	P1P2	P3P4	≥P5
No.	1	43	5	8	1	41 x	9	5	3
%	1.72	74.13	8.62	13.79	1.72	70.68	15.31	8.62	5.17

x 5 Patients did have pregnancies but no viable birth.

TABLE - II
MODE OF PRESENTATION

Problem	No.	%
Pain in abdomen	25	43.10
Oligohypomenorrhoea	20	34.48
Infertility	17	29.31
Amenorrhoea	11	18.96
Excessive Menstruation	9	15.51
Lump in abdomen	6	10.34
Post Menopausal Bleeding	2	3.44
Miscellaneous	18	31.03

TABLE - III
CLINICAL DIAGNOSIS

Diagnosis	No.	%
Primary Infertility	27	46.55
Secondary Infertility	5	8.62
Pelvic inflammatory disease	6	10.34
Fibroid Uterus	3	5.17
Dysfunctional Uterine-haemorrhage	3	5.17
Ectopic Pregnancy	2	3.44
Genital tuberculosis	2	3.44
Secondary Amenorrhoea	2	3.44
Twisted Ovarian tumour	1	1.72
Malignant ovarian Tumour	1	1.72
Cervical Carcinoma	3	3.44
Other	30	51.72

The patient with proliferative type of tuberculosis disease of cervix had involvement of upper vagina also. There was one case where fallopian tube biopsy was positive for tuberculosis by histopathology (Biopsy taken during sterilization operation) but endometrial biopsy taken later was negative. Diagnosis was by histopathology in 35 cases (60.34%) Bacteriological culture was positive in 15 (25.86%). Both were positive only in 4 cases (6.89%) (Table IV). Out of the rest four, in two cases hysterosalpingography was in favour of genital tuberculosis with evidence of endometritis in histopathology. In one case with history of contact, strong clinical suspicion, immunological test based on sandwich ELISA (Reddy et al 1984) was

used and it was positive. In one other case this test was done and was positive. In this case histopathology of pelvic mass removed with subtotal hysterectomy was very suspicious of tuberculosis. Operative findings were also in favour of tuberculosis in this multipara operated for ovarian malignancy as clinical diagnosis. In 6 cases laparotomy was done. Three had total hysterectomy with bilateral salphingo-oophorectomy (one had unilateral salphingectomy). In one other patient subtotal hysterectomy with salphingo-oophorectomy on both sides with removal of pelvic masses was done. In one case which was thought to be a case of twisted ovarian tumour and explored only biopsy was taken during laparotomy (Table V).

TABLE - IV
SURGERY - DIAGNOSTIC/THERAPEUTIC

Surgery	No.	%
Dilatation and curettage	54	93.10
Cervical Biopsy	3	5.17
Laparotomy (x)	3	5.17
Subtotal Hysterectomy with bilateral salphingoophorectomy and removal of masses	1	1.72
Total hysterectomy with bilateral salphingoophorectomy	2	3.44
Total hysterectomy with unilateral salphingectomy with removal of mass	1	1.72

- (x) a. Fallopian tube biopsy during tubal ligation
b. Ectopic pregnancy - Salphingectomy
c. Operation done for twisted ovarian tumor.

TABLE - V
HISTOPATHOLOGY OF ENDOMETRIUM

	No.	%
Tuberculosis endometritis	28 out of 53	52.83
Secretary phase	12 out of 53	22.64
Proliferative phase	10 out of 53	18.86
Blood Clot	1 out of 53	1.88
Hormonal imbalance with hyperplasia	1 out of 53	1.88
Hormonal imbalance	1 out of 53	1.88
D & C not done	4 out of 58	6.08
Material only endocervix	1 out of 58	1.72

Discussion

Genital tuberculosis continues to be not an uncommon cause of infertility and other gynaecological symptoms. The diagnosis is seldom suggested by the history, physical examination or some investigations. It may come unexpectedly. It is capable of varied modes of presentation. However infertility, amenorrhoea and other menstrual disturbances are said to be common modes of presentation. In the present series also we found that infertility was the most common problem. Most common age group was 20 to 30 years. Hutchins (1977) in his study found more patients between 40 to 50 years of age group. It is well known that in patients with primary infertility genital tuberculosis might be the cause in spite of our inability to prove it (histologically or bacterologically) Beyth et al 1971. This disease is capable of a wide spectrum of clinical presentation. High degree of suspicion, added by intensive investigations is required to diagnose this condition in some patients. In the present series though infertility was the most common presentation, patients did present as leiomyomas (6.89%), as ectopic (5.17%) and genital malignancy (6.89%).

In the cases of leiomyomas the diagnosis of this additional disease was a great surprise. Since it remains silent for years diagnosis is over looked. Similarly in patients with cervical pathology (5.17%) two were post-menopausal grandmultiparas and the diagnosis was cervical malignancy. Moreover the involvement of different organs varies greatly, 99-100% fallopian tubes, 50 to 60% endometrium, ovaries 20% to 30% cervix 5% to 15% (Schafer 1972). However the only source of material generally available and studied from

genital tract in endometrium by biopsy and/or histopathology or menstrual discharge by culture. This factor limits the cases in whom definite diagnosis can be made. It is theoretically possible to make the diagnosis only in 50% of affected patients. Further, a single endometrial biopsy may not be diagnostic as the disease has not a focal pathology (Govan 1962). Histological examination of material does not reveal the disease in 50% cases (Francis 1964). All the modalities of investigations available help in diagnosis of the disease. Immunological tests probably will be able to diagnose most of the cases.

Conclusions

Clinical study of 58 cases of genital tuberculosis is presented. Common age group was 20 to 30 years. Most of the women were infertile. Though most of them came with infertility and/or amenorrhoea some did present with fibroid uterus, as ectopic pregnancy or ovarian tumour. All available modalities of investigations were used for diagnosis including immunological test on strong clinical suspicion. It can be concluded that genital tuberculosis may present with all possible modes of presentation. Diagnosis is only possible with clinical suspicion and utility of all modes of investigations.

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DISCUSSION

The etiology of genital tuberculosis is a controversial issue. It is generally accepted that the infection is spread from a primary focus in the lungs. The organism, *Mycobacterium tuberculosis*, is thought to reach the genital tract by the lymphatic system. The prevalence of genital tuberculosis is higher in patients with a history of pulmonary tuberculosis. It is also more common in patients with a history of tuberculosis in other parts of the body. The infection is usually asymptomatic for a long time. It is often discovered incidentally during a routine chest X-ray or a tuberculin test. The diagnosis is usually confirmed by a positive result on a culture of the sputum or a biopsy of the affected organ. The treatment is usually with anti-tubercular drugs. The prognosis is generally good, but it may be complicated by infertility and other sequelae.

Genital tuberculosis is a common cause of infertility in both men and women. It is often discovered incidentally during a routine chest X-ray or a tuberculin test. The diagnosis is usually confirmed by a positive result on a culture of the sputum or a biopsy of the affected organ. The treatment is usually with anti-tubercular drugs. The prognosis is generally good, but it may be complicated by infertility and other sequelae. In men, the infection may affect the epididymis and vas deferens, leading to obstructive azoospermia. In women, it may affect the fallopian tubes and uterus, leading to tubal blockage and intrauterine adhesions. The infection is usually asymptomatic for a long time. It is often discovered incidentally during a routine chest X-ray or a tuberculin test. The diagnosis is usually confirmed by a positive result on a culture of the sputum or a biopsy of the affected organ. The treatment is usually with anti-tubercular drugs. The prognosis is generally good, but it may be complicated by infertility and other sequelae.