

TUBERCULOSIS OF FEMALE GENITAL TRACT

N. GUPTA, H.L. ARORA, A. GUPTA

SUMMARY

Thirty cases of tuberculosis of female genital tract during a period of 5 years from 1985 to 1989 were studied. Maximum number of cases were seen in age group 21-30 years (46.66%). The commonest clinical presentation was primary sterility (46.66%). The highest prevalence rate of tuberculosis was noted in the endometrium (86.66%). No case of tuberculosis of cervix, vagina and ovary was found. Histopathological examination was carried out in biopsy material stained with hematoxylin and eosine (H&E) and Ziehl Neelson stain for demonstration of acid fast bacilli. Secretory phase was observed in 69.24% of total cases of tubercular endometritis.

Introduction

Tuberculosis of the female genital tract is one of the commonest causes of infertility as noted in infertility clinics. Only patients with minimal changes can have full term pregnancies, whereas advance stage of disease leads to permanent infertility. Several studies carried out in India reveal an incidence of tuberculosis varying from 3.2 to 10.0% (Jhaveri et al, 1972 and Sathe et al, 1979). In western countries the incidence varies from 0.05% to 1.8% (Hutchins, 1977 and Noglas 1979).

This study has been undertaken to find out the prevalence of the disease in this part of the country and assess the positivity of tubercle bacilli in the histopathological sections.

Material and Methods

The present study has been based on the data of 30 cases of genital tract tuberculosis diagnosed histopathologically and registered in the Department of Pathology, S.P. Medical College, Bikaner, Rajasthan from 1985 to 1989.

Observations and Results

In our study the maximum number of cases were recorded in the age group of 21-30 years (46.66%) as shown in Table I. The commonest clinical presentation was primary sterility (46.66%) followed by secondary amenorrhoea, uterine bleeding, missed abortion, chronic cervicitis, old Koch's chest and lump in the abdomen as shown in Table II.

TABLE I
Age Distribution

Sr.No.	Age in years	No. of cases	Percentage
1.	0-10	00	00
2.	11-20	11	36.66
3.	21-30	14	46.66
4.	31-40	02	06.67
5.	41-50	02	06.67
6.	50 & above	00	00
7.	Unknown	01	03.34
	Total	30	100.00

TABLE II
Clinical Presentation

Sr.No.	Clinical Presentation	No. of Cases	Percentage
1.	Primary sterility	14	46.66
2.	Uterine bleeding	02	06.66
3.	Secondary infertility	03	10.00
4.	Missed abortion	01	03.34
5.	Primary amenorrhoea (Period not started)	01	03.34
6.	Chr. Cervicitis	01	03.34
7.	Old Koch's chest	01	03.34
8.	Ovarian cyst	01	03.34
9.	Lump abdomen	01	03.34
10.	Oligomenorrhoea	01	03.34
11.	Unknown	04	13.30
	Total	30	100.00

The prevalence rate of tuberculosis was highest in the endometrium (86.66%) as compared to fallopian tube (6.67%). In hysterectomy specimens endometrium and both the fallopian

tubes showed evidence of tuberculosis in 6.67% of cases. No cases of tuberculosis of cervix, vagina and ovary were found in the present study as shown in Table III. The histopathological

study was based on routine H & E stained sections which revealed the presence of caseation, Langhan's giant cells, epithelioid cells, lymphocytes and fibroblast in all the cases of tubercular endometritis and salpingitis. In tubercular endometritis, endometrial tissue revealed secretory phase in 69.24 percent, proliferative phase in 23.08 percent and completely destroyed normal tissue in 7.68 percent cases, as shown in

The commonest clinical presentation in the present study was primary sterility (46.66%) similar to that recorded by Tyagi et al 1977 (43.00%) and Bombhate et al 1986 (58.06%), Bombhate et al (1986) also reported that tuberculosis does not play any role in functional uterine bleeding. In the present study, only one case of genital tuberculosis with Koch's chest was noted whereas Amamath et al (1987) noted

TABLE III
PREVALENCE RATE

Sr.No.	Nature of Tissue	No. of Cases	Percentage
1.	Endometrium	26	86.66
2.	Fallopian tube	02	06.67
3.	Hysterectomy specimen	02	06.67
4.	Cervix, vagina and ovary	00	00.00
Total		30	100.00

TABLE IV
Phasing of Endometrium

Sr.No.	Type of phase of endometrium	No. of cases	Percentage
1.	Proliferative phase	06	23.08
2.	Secretory phase	18	69.24
3.	Completely destroyed tissue	02	7.68

Table IV.

A special stain was done for A.F.B. by Ziehl Neelson staining in all the 30 cases, but no A.F.B. positivity was seen in any case.

Discussion

Tuberculosis of the female genital tract was common in age group 21-30 years (46.66%) which is consistent with the findings of Tyagi et al 1977 and Sathe et al, 1979.

it in 29.58% cases. Sathe et al (1979) noted that the cause for amenorrhoea in cases of tubercular endometritis is said to be due to end organ failure by caseation. The prevalence rate of tuberculosis was higher in endometrium (86.66%) in our study. Almost similar to that reported by Kirloskar et al (1968), Hutchins (1977), Sathe et al (1979) and Bombhate et al (1986). In our study the prevalence rate of tubercular salpingitis was only 6.67% almost similar to that reported by Kirloskar et al (1968) and Sathe et al (1979).

However, Noglas (1979) reported tuberculous lesion in 100% and Agarwal et al (1987) is 74% in clinically diagnosed cases of tubercular salpingitis.

No case of cervical, vaginal and ovarian tuberculosis was found whereas cervical tuberculosis has been reported by Paranjothy (1971) 41.08% Noglas (1979) 25%, Agarwal N. et al (1987) 8.12% and Amarnath et al (1987) 5-10% cases. Ovarian tuberculosis was reported by Schaefer (1970) in 20-30% and Agarwal S. (1987) in 26.08% cases. Schaefer (1970) and Bombhate et al (1986) reported vaginal tuberculosis in their studies in less than 1 percent cases.

The cause for lower incidence of cervical, vaginal and ovarian tuberculosis may be that cervical mucus membrane is comparatively immune to tubercle bacilli infection. The tubercle bacilli are unable to penetrate squamous epithelium of portio-vaginalis and resistency of cervix due to increased vascularity (Paranjothy, 1971).

In our cases of tubercular endometritis, endometrium revealed secretory phase in 69.24 percent cases whereas Tyagi et al (1977), Khan et al (1982) and Bombhate et al (1986) reported tuberculous lesion of endometrium associated with proliferative phase which can be explained the timing of biopsy in relation to the day of the menstrual cycle.

No case of A.F.B. positive was found by Ziehl Neelson staining. The incidence of A.F.B. positivity varies also from 0 to 63.5% as reported by Reddy et al (1975), Tyagi et al (1977) and Khan et al (1982).

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