TUBERCULAR ENDOMETRITIS

by

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Tubercular endometritis does not present as a separate entity, although the incidence reported is high. Many such cases are apparently healthy and attend the hospital simply for infertility or menstrual disorders. It is the routine use of endometrial biopsy which discloses in many cases the presence of the existing tuberculosis. The high incidence and poor prognosis as far as fertility and conception are concerned attributed considerable importance to the disease in fertility studies, and important contributions have been made by various workers (Jedburg, 1950; Aikat *et al*, 1952; Mitra, 1952; Stallworthy, 1952; Malkani and Rajani, 1953; Gupta, 1957; Sutherland, 1958; Rewell, 1958; Bose, 1959; Devi, 1962; Phatak, 1965; Hafeez and Tandon, 1966; Sant *et al*, 1966; Samuel *et al*, 1967 and Mukerji *et al*, 1967).

Material and Methods

The present communication deals with the study of endometrial biopsies of 2995 cases of sterility and menstrual disorders during the period of 6 years from 1964 to 1969 at Kamla Nehru Memorial Hospital, Allahabad.

The tissue was obtained after the endometrial biopsy or curettage and was fixed in 10% formaline saline. Paraffin sections at 4-6 mμ were prepared and stained by haematoxylin and eosin. Those cases which showed definite histological evidence have been taken for evaluation in this study.

Observations:

Two thousand nine hundred and ninety-five cases taken for the present study belonged to the three groups: (i) primary sterility, (ii) secondary sterility, and (iii) menstrual disorders (Table 1).

TABLE I
Showing distribution of endometrial biopsies

Groups	No. of cases	Percentage
Primary sterility	1839	61.4
Secondary sterility	331	11.4
Menstrual disorders	825	27.2
Total	2995	100.0

The biopsies obtained from sterility cases constituted a major group of 72.8% and cases with menstrual irregularity were 27.2%.

Tubercular endometritis was proved histologically in 117 cases out of 2995, an

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incidence of 3.8%. The incidences of this entity in primary and secondary sterility and menstrual disorders were 3.2%, 5.1% and 4.9% respectively (Table II).

These cases were between the ages of 15 years to 46 years. An analysis of the age distribution is given in table III. The largest incidence of 58.9% was between 20-29 years. The next highest incidence was 23.1% in the age group of less than 20 years.

The presenting symptoms in cases of tubercular endometritis were sterility in 65% and menstrual disorders in 35% (Table IV). The highest incidence was with primary sterility (50.4%). Next common symptom was secondary amenorrhoea which was in 20.6%.

Primary amenorrhoea was present in only two cases, who were 16 and 25 years of age.

Histology: The lesion may vary from a solitary granuloma to extensive caseation. The granuloma consists of caseation in the centre surrounded by epithelioid cells, Langhan's type of giant cells, lymphocytes, plasma cells and fibroblasts. Although all the biopsies were done in the premenstrual phase, 64 cases (54.7%) showed tubercular endometritis associated with proliferative phase, while 20 cases (17.7%) were associated with the

TABLE II

Showing distribution of cases according to main group

Type of Disorder	No. of cases	Tubercular endometritis	
		No.	Percentage
Primary sterility	1839	59	3.2
Secondary sterility	331	17	5.1
Menstrual disorders	825	41	4.9
Total	2995	117	3.8

TABLE III

Showing the distribution of cases according to age group

Age in years	No. of cases	Percentage
Less than 20	28	23.1
21 to 29	68	58.9
30 to 39	19	16.2
Above 40	2	1.8
Total	117	100.0

TABLE IV

Showing distribution of cases according to presenting symptoms

Presenting symptom	No. of cases	Percentage
Primary sterility	59	50.4
Secondary sterility	17	14.6
Menstrual disorders—		
Primary amenorrhoea	2	1.6
Secondary amenorrhoea	24	20.6
Scanty menstruation	8	6.8
Profuse menstruation	7	6.0
Total	117	100.0

secretory phase. The remaining cases were associated with tubercular endocervicitis (13.7%) or tubercular granulation tissue (14.5%) (Table V).

TABLE V
Showing distribution of cases histologically

Histology	No. of cases	Percentage
Proliferative phase	64	54.7
Secretory phase	20	17.1
Tub. endocervicitis	16	13.7
Tub. granulation tissue	17	14.5
Total	117	100.0

Most of the cases associated with the secretory phase presented with the regular menstrual cycles, while cases showing only tubercular granulation tissue presented with amenorrhoea which may have been due to replacement of endometrium by granulation tissue.

Comments:

Significant impetus has been shown in the recent years to the management of cases of tubercular endometritis, and the incidence of the same in the endometrial biopsies is variably reported Gupta *et al* (1952) 10.1%; Sutherland (1952) 1.0%; Devi (1962) 3.1%; Sant et al (1966) 3%; and Samuel *et al* (1967) 5.5%.

The incidence of tubercular endometritis in sterility has also shown a wide range from 1.0% to 17.8% Malkani and Rajani (1953) 8.3%; Gupta (1957) 17.8%; Malkani and Banerji (1957) 9.8%; Rao (1958) 1.0%; Devi (1962) 10.0%; and Samuel *et al* (1967) 10.8%]. The incidence in the present series was 8.3%, out of which 3.2% were cases of primary sterility and 5.1% were of secondary sterility. Reports of other workers in primary sterility are given in table VI. Secondary sterility has been reported in about 10.0% of cases by Yeineh (1961), Knaus (1962) and Samuel *et al* (1967).

Eighty-nine per cent of the cases were Hindus while 11.0% of the cases were Muslims. This is due to the fact that the majority of patients attending O.P.D. are Hindus.

This disease is commonly seen in the active phase of reproduction. The present study confirms that this disease is most frequently seen in the age group of 20-29 years, as reported by Gupta (1957), Bose (1959), Rao (1960), Devi (1962), Phatak (1965), and Sant *et al* (1966) (Table VII). The average age of the

TABLE VI
Reports of tubercular endometritis in primary sterility

Authors	Year	Total cases	Tub. endo.	Percentage
Sharman	1955	3804	216	5.6
Rewell	1956	287	27	2.1
Malkani & Rajani	1953	1101	66	6.0
Gupta	1957	138	19	14.0
Hafeez & Tandon	1966	646	40	6.2
Samuel & Gupta	1967	2288	85	3.7
Mukerji et al	1967	2009	138	6.9
Present series	1970	1839	59	3.2

TABLE VII

Showing distribution of cases in different age group by various workers

Series	Year	No. of cases	Percentage of cases			
			below 20 yrs.	21-30	31-39	40 and above
Gupta (Gwalior)	1957	47	13	68	19	..
Bose (Calcutta)	1959	71	14	63	19	4
Rao (Madras)	1960	116	15	58	21	6
Devi (Nagpur)	1962	114	12	70	14	4
Phatak (Gwalior)	1965	112	9.8	62.52	24.1	1.8
Sant (Bombay)	1966	301	22.67	69.0	8.0	0.33
Present series (Allahabad)	1970	117	23.1	58.9	16.2	1.8

cases in this series was 24.5 years which correspond to 26.5 years reported by Bose (1959) and 24.6 years reported by Phatak (1965). In the age group of less than 20 years tubercular endometritis is reported to be ranging from 9.8% to 22.67% by Indian workers (Table VII). In this series the incidence was 23.1% in the younger age group, which is consistent with the findings of Sant *et al* (1966). The high incidence reported in the present analysis may be due to early marriages and the consciousness of the village population to have the child soon after. If no conception occurs soon after marriage then that is considered to be a disease in itself and patient reports early for the same.

Menstrual disorders were present in 35.0% of cases of tubercular endometritis, while others have reported an incidence of 21.5% (Jedberg, 1950), 25.0% (Sutherland, 1958), 42.5% (Bose, 1959), 13.2% (Rao, 1959), 20.4% (Yeinen, 1961; and Francis, 1964) and 45.5% (Samuel *et al*, 1967). The most frequent disorder was amenorrhoea, in 23.3% of the cases. The ranges of 43.4% to 64.0% have been reported by other Indian workers (Table VIII). The present findings correspond with the report of 18.7% by Samuel *et al* (1967) and 16.0% by Bose (1959).

According to western authors the incidence of amenorrhoea is comparatively less than that of Indian Authors. This is probably attributable to the belief of Indian women that menorrhagia is the excessive flow of the bad blood which is considered as healthy and hence they do not report while amenorrhoea is regarded as cessation of bad blood, a sign of disease, and they report it as a complaint. In this series the incidence of amenorrhoea is less than those of most of the Indian workers.

Menorrhagia or irregular bleeding was present in 50% of Stallworthy's series (1952), while it was in 16.5% of Sutherland's series (1958). Similar variations in the incidence in this country have been reported. The incidence is reported as 42.5% (Bose, 1959), 13.0% (Phatak, 1965) and 25.5% (Samuel *et al*, 1967). In this series it is 6.0%.

The low incidence of amenorrhoea and menorrhagia in comparison to other workers shows that the villagers are more conscious of sterility than any other menstrual irregularity.

Summary:

In this series, 2995 endometrial biopsies were studied from cases of sterility and menstrual disorders during the period of 6 years, from 1964 to 1969, at Kamla Nehru Memorial Hospital, Allahabad.

1. 72.8 per cent of the endometrial biopsies were from cases of sterility and 27.2% from menstrual disorders.

TABLE VIII

Showing percentage of incidence of sterility and amenorrhoea by various workers

Clinical symptoms	Authors										
	Malkani & Rajani 1953	Gupta 1957	Bose 1959	Rao 1959	Devi 1962	Shah 1963	Phatak 1965	Hafeez & Tandon 1966	Samuel et al 1967	Sant 1966	Present series 1970
Sterility	..	55	11	22	50	60	45.6 (Primary only)	..	55	95	65
Amenorrhoea	43.4	51	16	55	40	40	53.5	39.2	18.78	64	22.3

2. 3.8% of the cases were of tubercular endometritis while the incidences in primary sterility, secondary sterility and menstrual disorders were 3.2%, 5.1% and 4.9% respectively.

3. Fifty-nine per cent of the cases were between 20-29 years and 23.1% were of less than 20 years.

4. The presenting symptom in cases of tubercular endometritis were sterility in 65% and menstrual disorders in 35% of cases.

5. Fifty-five per cent of the cases were associated with the proliferative phase and 17.0% were with the secretory phase. The remaining cases were associated with tubercular endocervicitis and tubercular granulation tissue.

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