TUBERCULOUS ENDOMETRITIS

by

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Female genital tract tuberculosis is found throughout the world and tubercular endometritis does not present as a separate entity, although the incidence reported is high. The ease with which endometrial biopsy can be taken and examined has brought more and more cases to light. None of the manifestations of systemic tuberculosis may be presented by patients suffering from tuberculous endometritis. Many such cases are apparently healthy and attend the hospital for infertility or menstrual disorders. The present communication is based on the study of 100 cases of tuberculous endometritis found during the routine histological examination of biopsy specimens in the Department of Pathology, Kornool Medical College, Kurnool.

Material and Methods

Endometrial biopsies are received as routine procedure for the diagnosis of various types of diseases. A total of 5831 endometrial biopsies were examined over a period of 12 years and of these tuberculous endometritis was observed in 100 cases.

The tissue was obtained after biopsy or curettage and was fixed in 10% formal-saline. Paraffin sections were prepared and stained by Haematoxylin and Eosin. Ziehl Nielson's method was used to demonstrate acid fast bacilli and Van Gieson's was used to demonstrate fibrotic reaction.

Observations

Tuberculous infection of the endometrium was observed in 100 cases out of 5831 endometrial biopsies forming a percentage of 1.7. Of these 100 cases, 87 cases (87%) were Hindus and 13 (13%) were Muslims.

An analysis of age distribution of the cases is given in Table I. The maximum age incidence is in 21-30 years age group comprising 58%. The next highest incidence is 20% in the age group of below 20 years.

TABLE I

Distribution of Cases of Tuberculous Endometritis According to age group

Age in years	No. of cases
Below 20	20
21-30	58
31-40	15
Above 40	7
Total:	100

The presenting symptoms in cases of tuberculous endometritis is given in Table II which reveals that sterility was the

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TABLE II
Distribution of Cases According to Presenting Symptom

Symptoms	No. of Cases
Sterility	28
Amenorrhea	16
D.U.B.	12
Other menstrual disorders	44
Total:	100

presenting symptom in 28 cases and menstrual disorders such as amenorrhoea, dysfunctional uterine bleeding, profuse bleeding and scanty bleeding were noted in the rest of the cases.

Histopathologically the lesions varied from a solitary granuloma to extensive caseation. The granuloma consisted of caseation in the centre surrounded by epitheloid cells, Langhans type of giant cells, lymphocytes and plasma cells with or without fibrosis. Typical proliferative reaction was encountered in 78 cases and exudative type of lesion consisting of epitheloid cells, lymphocytes and plasma cells in the remaining 12 cases. Tubercles were often found located in the superficial part of endometrium (Fig. 1).

Frank caseation was noted in 10 out of 100 cases and well formed fibrous bands were noted in 8 cases only (Fig. 2) Blood vessel changes revealed minimal thickening in 4 cases.

Ziehl Nielson's stain did not reveal acid fast bacilli, either in interstitial tissue or in epitheloid cells or in giant cells.

Discussion

The reported incidence of tuberculous endometritis in the endometrial biopsies is variable. Mehrotra *et al,* (1971) recorded an incidence of 3.8%, whereas Sutherland (1956) noted only 1%. Devi (1962), Sant and Limaye (1966), and Samuel and Gupta, (1967) have noted 3.1%, 3% and 5%, respectively. Hafeez and Tandon (1973) found an incidence of 4.43% of endometrial tuberculosis among all endometrial biopsies. In the present series an incidence of 1.7% was found.

Eighty-seven per cent of the cases were Hindus, while 13% of the cases were Muslims in the present study which was in agreement with the observations made by Mehrotra *et al,* (1971). This may probably be due to the fact that more Hindu patients attend the Outpatient department than the Muslim community.

Tubercular endometritis is more common in the active reproductive life. In the present series, maximum age incidence was noted in 21-30 years age group which was comparable to the figures reported by Gupta (1957), Bose (1959), and Pathak (1965). Highest incidence of 89.1% was recorded by Hafeez *et al,* (1966) in the same age group. The incidence of tuberculous endometritis in the age group of 20 years ranges from 9.8% (Pathak, 1965) to 23.1% (Mehrotra *et al,* 1971). An incidence of 22.67% was noted by Sant *et al,* (1966) which is almost similar to the observations made in the present study.

Most of the cases of tuberculous endometritis are infertile. Kovacs and Gaveller, (1958) reported that 74.3% had sterility, while Rabu and Liquornick (1957) reported that 100% of his cases were sterile. Bose (1959) noted an incidence of 11% sterility in their cases. Forty per cent of the cases reported by Hafeez and Tandon, (1973) came for sterility only Gupta and Borkotoky, (1959), Bhaskara Rao (1959) and Rewell (1958) have also reported similar findings. In the present series only 28% of the cases had sterility.

Various menstrual disorders are found

in cases of tuberculous endometritis. Menstrual disorders were present in 35% of the cases of tuberculous endometritis in Mehrotra *et al*, (1971) series, while Bose (1959) and Samuel and Gupta, (1967) noted an incidence of 42.5% and 45.5%, respectively. The most frequent disorder was amenorrhoea. The incidence ranged from 43.4% Malkani and Rajani, (1953) to 64% (Sant and Limaye 1966). In the present series menstrual disorders were noted in 72 cases and amenorrhoea was the presenting symptom in 16 cases.

The present study revealed typical proliferative tuberculous lesions in 78% of cases and exudative lesions in 12%. Minimal blood vessel changes and fibrosis was noted in 4% and 8%, respectively.

According to Hafeez and Tandon, (1973) 30% of the cases were found positive for acid fast bacilli. Though such typical proliferative lesions were seen in the endometrium none revealed positive acid fast bacilli in the present study.

Summary

One hundred cases of tuberculosis of the endometrium were encountered out of a total of 5831 endometrial biopsies forming a percentage of 1.7.

Fifty-eight per cent of the cases were between 21-30 years and 20% were below the age of 20 years.

The presenting symptom in cases of tuberculous endometritis was sterility in 28% and menstrual disorders in 72%.

Proliferative lesion was the commonest histological type encountered (78%).

None of the endometria revealed positive acid fast organisms.

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See Figs. on Art Paper I