

A CUNICOPATHOLOGICAL STUDY OF ENDOMETRIAL TUBERCULOSIS IN INFERTILITY

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INTRODUCTION

Tuberculosis endometritis is found in 50-90% of women with genital tuberculosis¹⁻⁴. The fallopian tubes are the initial site of involvement and are invariably affected in almost all cases^{3,4}. Infection first commences in the mucosa and then spreads through the tubal wall to the peritoneal surface^{5,6}. The endometrium gets involved by seeding from the tubes⁵⁻⁹. However, in rare instances, reinfection from its basal layer or myometrium may occur^{8,10}. Endometrial tuberculosis may take one of the three forms⁸. It may be a part of widespread pelvic involvement, the advanced type¹, be a part of the gross infection involving the uterine wall but confined to the uterus, or may occur as few small isolated lesions confined to the endometrium⁸. The characteristic histopathological lesion may be proliferative, exudative or mixed. In the absence of typical granulomas, certain minor lesions can be suggestive of a tubercular aetiology and these include focal lymphocytic aggregates, cystic dilatation and distortion of glands, active destruction of epithelium and the presence of inflammatory exudate in the glandular lumen^{2,11-13}. There may be an occasional plasma cell infiltration and this has been found to be associated with acute flare ups following curettage¹¹.

PATIENTS, METHODS AND RESULTS

On the basis of clinical presentation, the patients were divided into 2 groups. Group I included 12 women who presented with infertility alone while group II included 11 cases who had other associated symptoms. Menstrual disturbances were present in all group II cases, with amenorrhoea being the commonest complaint (9).

Histopathology of endometrium

Various histopathological lesions seen were as follows:

- 1. Proliferative lesions:** Solid epithelioid granulomas without caseation were seen in 18(78%) cases.
- 2. Exudative lesions:** Extensive tuberculous granulation tissue with frank caseation were seen in 2 (8.6%) cases.
3. Minor lesions were seen in one and no lesion in 2 cases.

Phasing of uninvolved endometrium

The intervening endometrium showed proliferative phase in 14(60.8%) and secretory in 5(21.7%) cases.

The endometrium was hyperplastic in 2 (8.6%) cases while no phase could be detected in 2(8.6%) other cases on account of extensive caseating exudative lesions.

clinicopathological correlation:

When clinical symptomatology was correlated with the histopathological picture it was observed that:

- (a) all cases with infertility who had no menstrual disturbances had proliferative lesions,
- (b) patients with infertility and amenorrhoea had exudative lesions with frank caseation and
- (c) cases with infertility and menorrhagia had hyperplastic intervening endometrium. Though most biopsies were timed for a pre-menstrual phase, a high incidence of proliferative endometrium (60.8%)

was found.

COMMENTS

Infertility is the commonest mode of presentation of genital tuberculosis and in the present study, 89% patients presented with this complaint. We observed that the clinical symptomatology correlated very well with the pathology reflected in the endometrium. The classical tuberculous granuloma is essentially similar to that found in other organs. The granulomas are generally young, immature and non-caseating found mostly in the superficial parts of the endometrium either focal or diffuse and in the second half of the menstrual cycle^{2,4,11,14}. This characteristic proliferative lesion was seen in all cases of infertility without any associated symptoms and may be attributed to the lack of time for the development of caseation due to the interruptions of menstrual cycle^{2,11,13}. However, where infertility was associated with other symptoms, the classical picture changed. Two cases with long standing amenorrhoea, one of them being primary investigated at the age of 18 years had exudative lesions. It can be assumed that lack of periodic shedding favours the development of extensive tuberculous granulation tissue and frank caseation^{2,11,13}. Endometrial tuberculosis does not always give a characteristic pattern and sometimes minor lesions may be demonstrated^{2,11,13}. A variety of endometrial patterns are found in association with tuberculous lesions such as proliferative, secretory polypoidal and hyperplastic^{2,11,13}. The last mentioned picture is infrequently met with, except in cases where irregular bleeding is the predominant complaint¹¹. This pattern was observed in two of our cases who presented with infertility and menorrhagia. Although all biopsies were taken in the second half of the menstrual cycle, we observed a high incidence of proliferative endometrium (60.8%). This is consistent with the earlier reports^{2,12,13}. The likely explanation is the possibility of an altered ovarian function presumably due to defective ovarian steroidogenesis or the result of end organ failure^{2,12,13}.

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