

## FEMALE GENITAL TUBERCULOSIS - NEED FOR MORE RESEARCH

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### INTRODUCTION

Genital tuberculosis (TB) in females is found in 0.75 to 1 % of gynaecological admissions in India<sup>1</sup> with considerable variation from place to place.<sup>2</sup> The disease is responsible for 5% of all female pelvic infections and occurs in 10% cases of pulmonary tuberculosis<sup>3</sup>. Although most of the affected belong to reproductive age-group, the disease has been reported in postmenopausal females as well.<sup>1-4</sup>

Lately, an increase in the trend of the disease has been reported<sup>5</sup> which may be partly due to increase in the population with overall rise in tuberculosis cases. The other contributory factor may be HIV infection with increased incidence of pulmonary and extra-pulmonary forms of tuberculosis including the drug resistant forms'. A rare case of vaginal tuberculosis in an HIV seropositive female had been earlier reported by the author<sup>7</sup>. The immunocompromised state due to HIV infection causes reactivation of endogenous tuberculosis infection to development of tuberculosis disease. In the case of vaginal tuberculosis, the changed vaginal pH may also play a part in the causation of disease<sup>7</sup>.

Genital TB occurs mostly secondary to pulmonary tuberculosis, commonly by the haematogenous route in a manner similar to spread to other extra-pulmonary sites like urinary tract, bones and joints etc. The fallopian tubes are affected in almost 100% of the cases followed by the endometrium in 50%, ovaries in 20%, cervix in 5% and vagina and vulva in <1%.<sup>3,7</sup> However, a few reports have found endometrium to be the most

commonly involved site.<sup>15</sup> Direct inoculation of tubercle bacilli can also take place over vulva or vagina during sexual intercourse with a partner suffering from tuberculous lesions of genitalia.

### CLINICAL PROFILE

Clinical symptoms and of their development can be Variable. Whereas infertility (in 60% of cases), pelvic pain and menstrual disorders like scanty menstruation and amenorrhoea are the usual presentation, some patients may be asymptomatic<sup>3</sup>. Dysfunction of menstruation is largely attributed to endometrial caseation<sup>8</sup>, infertility is considered due to pathology in endometrium and fallopian tubes and a blockage of ovum transport<sup>8,9</sup>. The anti-gonadotrophic effect of *Mycobacterium tuberculosis* may be responsible for menstrual irregularities that take place in cases of active pulmonary tuberculosis having no demonstrable lesions in genital tract<sup>0</sup>.

The diagnosis of the disease is difficult. Apart from varied clinical presentation, a past history of tuberculosis or a history of contact may not be forthcoming and an evidence of tuberculous lesion elsewhere may be lacking. The abdominal and vaginal examinations may be normal. A high erythrocyte sedimentation rate and a positive Mantoux test are non-specific. The chest skiagram is normal in most cases. A pelvic ultrasound and hysterosalpingography examinations may be of some help. Histopathological evidence in biopsy of premenstrual endometrial tissue or demonstration of tubercle bacilli in culture of menstrual blood or endometrial curettings only can provide the certain diagnosis of disease<sup>1</sup>. Laparoscopy should be done carefully to

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avoid injury to an adherent bowel loop. A laparotomy, of course, shows the presence of tubercles and can provide adequate histological and Bacteriological evidence. Certain conditions like tubo-ovarian mass (T-O mass) of gonococcal / pyogenic origin, pelvic endometriosis, small ovarian cyst and old pelvic haematocoele may closely mimic a T-O mass<sup>3</sup>. Therefore, all the available diagnostic techniques should be combined judiciously and correlated with the clinical profile prior to instituting the anti-tuberculosis treatment (ATT).

### WHY MORE RESEARCH?

In view of the problems of making a definitive diagnosis of genital TB in females, many physicians tend to adopt the therapeutic test for elimination of any type of TB including the genital type by prompt execution of ATT for the requisited period of time. But, a prescription error or poor compliance can delay the response to treatment leading to failure, thereby resulting in continued morbidity despite the fact that good quality ATT is available under RNTCP and the results are quite Encouraging<sup>10</sup>.

However, Rifampicin has been known to induce menstrual disturbances in a few cases which got normalised on further continuation of their anti-tuberculosis therapy". Rifampicin induced increased enzymatic catabolism of oestrogens is believed to affect the leutinizing hormone surge resulting in anovulatory cycles and causing minimal peeling of the functionalis layer in proliferative endometrium, which manifests in the form of oligomenorrhoea or amenorrhoea. Reversal of these disturbances is thought to take place due to the transitory nature of the effect or lowered threshold for the pituitary stimulus. Case reports have mentioned amenorrhoea and infertility to be frequently present following ATT<sup>U2</sup>. Persistence of these symptoms may occur as a result of the disease process or due to healing caused by the chemotherapy<sup>1</sup>. Continuing search is needed for finding simpler and practicable methods for making definitive diagnosis in respect of female genital TB and the use of therapeutic test should be avoided.

Prompt ATT and appropriate surgical intervention has improved the results in terms of cure from disease, restoration of female reproductive function and reduction of procedural and post-operative complications. The chances of pregnancy in females suffering from genital TB have so far been poor (5%) even after the completion of treatment<sup>3</sup>. But, results have been reported in difficult cases managed timely with combined medical treatment and a surgical intervention<sup>5,13</sup>. In vitro fertilization has also provided a ray of hope to the desperate infertile women in recent times<sup>14</sup>. Further research may help further improve the fertility rate after cure of genital TB.

It may be mentioned that research is considerably hampered due to a non-availability of clear criteria for monitoring the treatment efficacy, unlike in pulmonary TB<sup>1</sup>. Therefore, more research is needed, so that delivery of therapy can become more certain and therapeutic effects get better defined in terms of the normalisation of the pathologic process and the desirable reproductive function.

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### **53rd TB Seal Campaign**

His Excellency Dr. A.R J. Abdul Kalam, the President of India and Patron of the Tuberculosis Association of India inaugurated the 53rd TB Seal Campaign on 2nd October, 2002 at Rashtrapati Bhawan, New Delhi. TB seals depicting paintings of two parrots and two lotus flowers were presented to the President of India by Hon'ble Shri Shatrughan Sinha, Minister of Health and Family Welfare, Government of India. Shri S.K. Naik, Health Secretary, Ministry of Health and Family Welfare, presented the special souvenir while Dr. S.R Agarwal, Chairman, Tuberculosis Association of India and Director General of Health Services presented a film on TB and a flip chart to the Hon'ble Rashtrapati.

### **57th National Conference on Tuberculosis and Chest Diseases**

The 57th National Conference on Tuberculosis and Chest Diseases was held in Panaji (Goa) from 26th to 29th September, 2002 under the joint auspices of the Tuberculosis Association of India and the Anti-TB Association of Goa. In all, 49 scientific papers were presented, in addition to 3 orations, a panel discussion and a guest lecture.