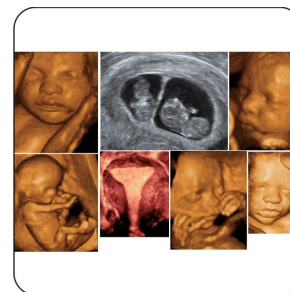


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INFERTILE COUPLE; ROLE OF ATT RELATED TO TUBAL INFLAMMATORY DISEASE



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ABSTRACT ... Tuberculosis is prevalent in Pakistan and is a major community health problem. There is increase in female genital tuberculosis along with increasing prevalence of pulmonary and pelvic tuberculosis. Over the span of 7 years, 500 infertile couples were investigated. Initial investigations were, husbands semen analysis and for female partner ESR and tuberculin test. Tuberculin test was positive in 70% of the patients. Anti Tuberculosis Therapy (ATT) was given for 4-6 months. Hystero-salpingography (HSG) was done after the ATT, HSG with normal findings was proceeded with induction of ovulation, 80% of the couples conceived among those with normal semen analysis.

INTRODUCTION

Over 8 million new cases of tuberculosis occur worldwide annually and nearly 3 million people die annually from the disease. The increase in pulmonary tuberculosis has been accompanied by an increase in extra pulmonary tuberculosis. One may anticipate that the female genital tuberculosis will also become more prevalent. Female Genital Tuberculosis (FGT) should be differentiated from pelvic or peritoneal tuberculosis, which presents as tuberculosis of intestine or pelvic lymph nodes usually with miliary spread to omentum and serosal surface of intestines and pelvic viscera. It does not involve the mucosa of the pelvic organs and may not impair function.

FGT involves the mucosa of fallopian tubes, with or without spread of the uterus and ovaries. The peritoneum may or may not be involved¹. It is always

secondary to tuberculosis elsewhere in the body, usually the lungs. The usual routes of infection are the blood stream, the lymphatics and by direct extension from a neighbouring viscera. The frequency of involvement of the genital organs by tuberculosis is, fallopian tubes 100%, endometrium 50-60%, ovaries 15-25%, cervix 5-15% and vulva and vagina 1%². About 85% cases of FGT are first diagnosed in patients aged 20-40 years usually during an investigation for infertility although the disease probably existed for many years³.

PATIENTS AND METHODS

The study was conducted at Nishtar Hospital outdoor run by Prof. Ata-Ullah Khan. Over the period of 7 years a record kept and maintained of 500 entries. On their first visit after proper history, clinical examination and ultrasonography was done. After the exclusion of other

causes, apart from husband's semen analysis, ESR, tuberculin test (TT) was also advised to female partner.

Couples presenting with any abnormality in semen analysis was dealt accordingly. After 72 hours TT was examined and reviewed with ESR. If TT was negative and HSA is normal, patency of fallopian tube was assessed by HSG under TV control. If all parameters are normal, then induction of ovulation is done. Patients with findings of mild hydrosalpinx, distal blockade associated with mild to moderately dilated tubes, all are given ATT, even if their TT was negative and they were called back after 2-4 months, to repeat HSG under TV control with single X-ray. Patients with good results were given induction of ovulation.

RESULTS

A total of 500 patients were included in this study of which 400 patients conceived after the appropriate management. The 100 patients did not conceive, despite all normal parameters.

Age	No of pts	% age
25-30 yrs	200	40%
31-35 yrs	250	50%
35-40 yrs	50	10%

As mentioned above 500 infertile couples were investigated, out of which 350 patients turned up with the result of positive TT. Initially they were given myrin-P and pyridoxine for 2 months. The dose was calculated according to the weight. After 2 months ESR was repeated, just to have a rough idea about the presence of inflammation then HSG under TV control was advised. ATT was continued. Patients were reassessed within 2-4 months. 400 patients had then HSG under TV control with 3-5 months of therapy of which 300 patients had HSG within normal findings and they were given induction of ovulation. 300 patients conceived within 3-6

months of treatment. 50 patients with beaded tubal appearance or mild to moderate hydrosalpinx on HSG even with ATT of 2-4 months. Then second HSG was normal and they conceived after induction of ovulation. A 100 infertile couple did not conceive despite having all parameters normal.

Population	No of pts	% age
Urban	100	20%
Rural	400	80%

Intake of milk	No of pts	% Age
Boiled	100	20%
Un boiled	400	80%

DISCUSSION

Pelvic tuberculosis is often a silent disease. It may be present for 10-20 years without providing symptoms with the woman remaining in apparent excellent health. Infertility is often one of symptom and sometimes, the only reason to investigate for the presence of the condition while tuberculosis is a common causes of infertility in developing countries and in Asia⁴. Pelvic tuberculosis usually, presents with pelvic pain, abdominal distension, when associated with ascites and infertility, most commonly due to tuberculous salpingitis, which occurs in 75% of cases, ovulation dysfunction that often presents with absent, excessive or non-cyclical menstruation largely tubo-ovarian involvement 40% cases and uterine endometrial tuberculosis 30%⁵. Local tuberculosis lesion may appear on the cervix and vagina.

The diagnosis can usually be established on the basis of complete history and physical examination, chest X-ray and lung plain X-ray and appropriate test such as tuberculin test, sputum smears and sputum cultures. Tuberculosis of female genital tract is usually secondary

to hematogenous spread involving the endometrium tube, and ovaries.

Pelvic tuberculosis can be differentiated from salpingitis, chronic pelvic inflammation and mycotic infection⁶. To prevent the emergency of drug resistant strains, the initial therapy of tuberculosis infection should include four drugs. The drug regimen for first 2 months of treatment should include isoniazid, rifinah, pyrizinamide. Once the drug susceptibility results are obtained the drugs can be changed.

The prognosis for life and health excellent if chemotherapy is started, improves allowing prognosis for fertility⁷.

These patients belong to a low socio-economic group and 80% had a history of having milk without boiling in routine. For this study boiled and unboiled milk was sent for culture and sensitivity as well. Mycobacterium were found in unboiled milk.

CONCLUSION

Pelvic tuberculosis is still having high prevalence in Pakistan, common contributory factor for fallopian tuber inflammation. If it is treated in time with proper dosage of

drugs, then it can help in restoring fertility and improving health of patient.

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