TUBERCULOSIS AND PREGNANCY

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SUMMARY

A substantial proportion of pregnant tuberculous women are asymptomatic. A careful history, contact history, screening of high risk population and radiography with abdominal shield in selected cases are needed for early detection. When tuberculosis is diagnosed these cases should be treated promptly and safely with INH, Ethambutol during Ist triemester followed by INH, Ethambutol and Rifampicin for next 6 months in standard usual doses. In this way morbidity and mortality of tuberculosis in pregnant mothers may be reduced to a great extent and transmission of tuberculosis to newborn may also be prevented.

INTRODUCTION

Tuberculosis has declined after advent of modern antitubercular chemotherapeutic agents but still remain a major health problem. It gets further complicated when tuberculosis affect the pregnant women. In a developing country like ours tuberculosis is a major cause of maternal and fetal morbidity as well as mortality.

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MATERIAL AND METHODS

The study was of three year duration from 1989 to 1992 and conducted at K.R. Hospital, Gwalior. High risk patients from Antenatal clinic were screened with the help of tuberculin skin test. Patients screened were

a) Pregnant women with signs or symptoms suggestive of tuberculosis.

b) History of known or suspected exposure to tuberculosis.

c) Past history of treated tuberculosis.

d) Patients with conditions like diabetes which lowers immune status.

e) Women from low socio-economic group.

209 cases who have either negative tuberculin test or value of equal or more than 15 mm were included in the study.

Detailed history was taken and all patients underwent complete general physical and systemic examination. Laboratory investigations including Haemogram with erythrocyte sedementation rate, direct sputum smear examination for AFB as well as its culture and chest radiograph with abdominal sheild after 12 wk of gestation were performed in all cases.

These cases were divided into four groups for management purposes as follows :

I No evidence of tuberculosis and tuberculin test negative. These patients were kept under observation and chemoprophylaxis with INH 300 mg OD for 9 months given in post partum period.

II Past History of Adequately treated tuberculosis. No evidence of disease. These patients were kept under observation.

III X-ray chest showed evidence of disease, ESR raised, sputum negative.

Treated with INH 300 mg/day
Ethambutol 600-800mg/day
16 weeks
↓
INH + Ethambutol and Rifampicin (450 mg/day)
for further 6 months.

IV Frank tuberculosis infection.

Treated with INH + Ethambutol + Rifampicin for 9 months irrespective of gestational age.

OBSERVATIONS

Two hundred nine patients were included in this study. Age ranges from 15 years to 39 years with an average of 24 yrs. One hundred sixty four cases (78%) were in 21 to 30 yr age groups and only four were above 35 yrs. (Table I).

Eighty five percent cases were in group II & III. Whereas group I & IV have 2.8 and 11.9 percent cases respectively (Table II).

Out of six cases in group I; 3 patients

Table I
AGE DISTRIBUTION OF CASES

Age Group	No. of Cases	Percent
15 - 20	22	10.52
21 - 25	86	41.15
26 - 30	78	37.32
31 - 35	19	9.09
35 & above	4	1.91
Total	209	100.00

Table II
GROUP DISTRIBUTION

Group	No. of Cases	Percent
I	6	2.87
II	31	14.83
III	147	70.33
IV	25	11.96

Table III
CLINICAL PRESENTATION

Symptoms	No. of Cases	Percentage
(a) Asymptomatic	109	52.15
(b) Symptomatic	100	47.85
(i) Cough	75	75.00
(ii) Wt loss	23	23.00
(iii) Fever	15	15.00
(iv) Malaise & Fatigue	30	30.00

Table IV
PREGNANCY OUTCOME

Group	No. of cases	Lost to follow up	Normal Delivery	Elective caesarean	Em. caesarean	Preterm Delivery	Spontaneous Abortion	IUD
I	6	-	5(2.39)	-	1(0.48)	-	-	-
II	31	12(5.74)	6(2.87)	7(3.35)	-	2(0.95)	4(1.91)	-
III	147	-	129(61.72)	11(5.26)	7(3.35)	-	-	-
IV	25	-	20(9.57)	4(1.91)	-	-	-	1(0.48)
Total	209	12(5.74)	160(76.55)	22(10.52)	8(3.83)	2(0.95)	4(1.91)	1(0.48)

became symptomatic during 3rd trimester of pregnancy and received 3 drug regime antitubercular therapy for 9 months.

Out of 209 cases 109 were clinically asymptomatic (52.15%). In symptomatic group cough, malaise and fatigue were common symptoms (Table III). Discrepancy in total number and percentage is because some cases have more than one symptom.

Regarding outcome of pregnancy; 160 delivered normal term baby, 30 caescarean, 2 preterm births and 4 spontaneous abortions in first and second trimester. One patient reported late in labour and had inrauterine death of featus. Two out of 4 spontaneous abortions had congenitally malformed fetus (Table IV).

DISCUSSION

Tuberculosis in pregnant women has been a topic of concern as well as controversy. Although prevalence of tuberculosis is declining it still poses a major health problem for fetus as well as mother. It is of great importance to identify these pregnant women who are infected with tuberculosis, because of the risk that they might transmit tuberculosis to their newborns . Screening for tuberculosis may be done using tuberculin skin test and chest radiography. Tuberculin test is preferred as there is no evidence of adverse effect on mother or fetus (Snider et al 1985).

Substantial number of patients with tuberculosis are asymptomatic (52% in present study) and early disease symptoms may mimic the physiological changes that occur in pregnancy as tachypnoea and fatigue. In symptomatic group we found cough, loss of weight, malaise & fatigue and fever as common symptoms. These corelated well with study of Good et al (1981).

INH, Ethambutol, Rifampicin are found safe in studies conducted by Danniel (1991), Snider et al (1980) and Davidson et al (1992). In our study we used these drugs and all patients underwent through pregnancy safely and delivered healthy babies except two congenitally malformed fetuses which aborted spontaneously.

As in studies of Schifer et al (1975) and DeSwiet (1989), all our patients remained stable except three patients had relapsed after a complete course of chemotherapy in post partum period.

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