TUBERCULOUS SPONDYLITIS IN PREGNANCY

by

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Tuberculous spondylitis in pregnancy is not a common disease. On account of earlier diagnosis and more prompt and effective treatment of tuberculosis, tuberculosis in pregnancy in general and tuberculous spondylitis in pregnancy in particular are on the decline. In our country as well as in other countries with low socio-economic status and illiteracy, the disease still prevails. Owing to the paucity of the reports of this disease in literature, it was thought worth while presenting this series of 10 cases. Gleaning through the papers of Indian Journal of Obstetrics and Gynaecology, the disease is conspicuous by its absence.

Material

The present study comprises of an analysis of 10 cases of tuberculous spondylitis in pregnancy, encountered at King Edward VII Memorial Hospital, Bombay, over a period of 4 years from 1964 to November 1967. During this period of study, there were 20,919 confinements, giving an incidence of about 1 in 2091 or 0.047 per cent.

TABLE I

Author	Incidence
Schayer et al	0.08-0.2%
Present series	0.047%

A higher incidence of this disease in the present series is probably because of an attached orthopaedic centre, from which these cases are referred.

Parity

One of these patients had undergone two pregnancies during the period of observation. As is seen, all except one were multiparous patients. The disease was diagnosed either earlier or during this pregnancy.

TABLE II

Parity	I	II	III	IV	V
No. of cases	1	3	4	2	1

Site of lesion

Spinal tuberculosis is met with most frequently in the lower thoracic

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region. The same was the case in this series. Various explanations are given for the same (Mercer).

The factors considered are, (i) relatively large amount of spongy tissue in vertebral bodies, (ii) the degree of weight-bearing and (iii) the extent of movement demanded of this portion of the vertebral column.

Fraser pointed out that it is the lymphatic spread which is responsible for the spread of the disease to the vertebrae. This results from the proximity of the thoracic duct to the anterior surface of the thoracic vertebrae and most of the abdominal lymphatics drain into the thoracic duct.

TABLE III

Site of lesion	Cervical	Thoracic	Thoraco-lumbar	Lumbar
Number of cases	2	6	1	1

Duration of gestation when first seen:

Two patients were seen before 12 weeks of gestation, 8 patients between 12-24 weeks and one patient after 24 weeks of gestation. This factor did affect to some extent the outcome of pregnancy.

Outcome of Pregnancy:

Therapeutic abortion was carried out in 4 active cases. Two of them were subjected to dilatation and curettage and the other two to hysterotomy. Three patients had spontaneous vaginal delivery.

One of these patients, who had lesion of cervical spine, developed quadruparesis at the end of second stage of labour. She was diagnosed to be having this pathology earlier in the third trimester and was advised cervical collar. The patient did not use the same when she was in labour and there was sudden onset of quadruparesis.

The second patient again had tuberculosis of cervical spine with quadruparesis to start with. The patient was hospitalised and treated conservatively. She improved and the labour was uneventful.

The third patient, who had an active lesion and a spontaneous vaginal delivery was a primipara. The lesion was detected earlier in pregnancy but the patient refused termination of pregnancy. The patient also had paraplegia. She delivered prematurely. The total duration of labour lasted for about 2 hours only.

Of the four patients who had an inactive lesion, two had spontaneous vaginal delivery and the other two underwent lower segment caesarean section for obstetric indications. The first patient had cephalo-pelvic disproportion. She had tuberculosis of

TABLE IV

Type of lesion	Outcome			
	Therapeutic abortion		Spontaneous vaginal delivery	L.S.C.S.
	D. & C.	Hysterotomy		
Active	2	2	3	-
Inactive	-	-	2	2

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thoracic spine and resulting kyphosis.

The other patient who underwent the same was a third para who gave history of previous lower segment caesarean section for cord prolapse. This time, she presented as a case of shoulder presentation. The membranes had ruptured at home. In view of her previously scarred uterus and oblique lie, she was subjected to caesarean section. Thus, in inactive cases, the labour was normal except for exclusively obstetric complications.

Advice as regards future pregnancies:

Three patients were sterilised. Husbands of two patients were advised vasectomy.

All these patients were treated with antituberculous line of treatment. Immobilisation of the affected part was also carried out. Four patients had also undergone surgical treatment for the same. Termination of pregnancy was carried out in 4 patients with an active lesion.

Discussion

Tuberculous spondylitis in pregnancy presents a special problem. The literature on skeletal tuberculosis complicating pregnancy is scanty. So far only 61 cases have been recorded in the English literature.

Varying opinions are expressed as regards management of these cases. The opinions differ as to the termination of pregnancy. According to Wilkinson (1950), the disease and pregnancy have no effect on each other. Interference is carried out solely for obstetric indications. Meyers, Noris, Pinard and Stanger are also of the same opinion. Schaefer in his series of 17 cases who underwent 22 deliveries found no changes in the existing conditions. The same were the results in Gibson's cases.

Contrary reports are also available in the literature. The incidence of neurologic sequelae increased from 11 per cent in non-gravid patients to 50 per cent during pregnancy (Chapman *et al*, 1939). However, these were the results in pre-chemotherapeutic era. It may be that adequate rest to the affected part and antituberculous treatment may prevent such complications.

According to Greiss and Bowden even with complete immobilisation, the mechanical stresses of pregnancy are not eliminated as nerve changes usually persist through delivery. Thus, in the presence of an unstable back, signs of spinal cord compression occur. Seddon has reported cases in which paraplegia occurred in non-pregnant patients from other forms of stress inspite of successful fusion of the spine.

From his results, it is also seen that in complete paralysis, recovery is less likely and the longer the paralysis perists, the poorer the prognosis. Recovery rate from paraplegia is high if the paralysis is incomplete and proper immobilisation is instituted.

It is advisable to terminate the pregnancy if the initial signs of spinal cord compression develop during pregnancy or precede pregnancy.

If however, a conservative regime is followed, termination of pregnancy becomes mandatory when sensory nerve changes progress to partial paralysis.

Summary

1. An analysis of 10 cases of tuberculous spondylitis in pregnancy is presented.

2. The line of management of this condition is also discussed.

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