CHAPTER IV
MATERIAL
AND METHODS
MATERIAL AND METHODS

This prospective study was carried in the Department of Orthopaedics Surgery, Paraplegia and Rehabilitation, Pt. B.D. Sharma PGIMS, Rohtak. Fifty patients aging more than 15-years and suffering from TB of the spine reporting to outdoor or admitted in the department were enrolled for the study. The observations in these patients were analyzed as per proforma attached.

Our criteria for selection of patients to the study were:

A) Inclusion criteria:

Patients suffering from TB of the spine as evident on clinico-radiologic evaluation.

B) Exclusion criteria:

Patient severely immunocompromised likely to affect healing and involvement pattern e.g. HIV positive patients, diabetics and patients with tumorous conditions.

ASSESSMENT OF THE PATIENTS:

It was done as per proforma attached. All these patients were studied in the following manner.

A) At the time of initial presentation.

i) Detailed informative history of the patient was taken.

ii) Thorough clinical examination both physical and neurological was performed. Neurological classification was done according to Tuli’s classification of stages of paraplegia.75

iii) Baseline haematological investigations like complete blood count, erythrocyte sedimentation rate, SGOT / SGPT, Serum bilirubin, Blood sugar, Blood urea, Serum proteins, AG ratio, HIV and HBS Ag were carried out.

iv) Urine complete examination was carried out to rule out urinary involvement and amyloidosis.

v) Plain X-rays of the chest, affected vertebral column and any other affected part of the body.
vi) Ultrasonography of the cold abscess (paraspinal, psoas) to know about initial size of the abscesses.

vii) MRI and / or CT scan: to localize the site and amount of destruction; vertebral body part affected; skip lesion; cord condition; epidural abscess; and abscess were done.

viii) Other investigations like FNAC (if diagnosis is doubtful), and pus culture in case of therapeutic drainage of pus was done.

ix) Biopsy was taken at the time of surgery if patient were operated.

x) Three sputum samples were tested for acid fast bacilli

xi) Tuberculin skin test (Mantoux test) was done.

After initial clinical examination and requisite investigations, protocol of treatment was decided. Patients requiring conservative treatment only were put on antituberculous treatment (ATT) for 12 months as per the regimen described by Prof. Tuli. The ‘prophylactic phase’ of this regimen was skipped. Braces were applied to prevent deformity of the spine. Requisite surgical procedure along with ATT was followed in patients requiring surgery.

B) Follow up:

It was done monthly for first three months, three monthly for one year and six monthly for 2 years. At any time during follow up if patient needed alteration in ATT or surgical intervention, it was done. Patients showing healing of tuberculous lesions on evaluation both clinical and investigations (haematologic and radiologic) after 6 months of ATT were the candidates for stopping further therapy. Patients not showing healing even after 12 months of treatment were considered for appropriate extended ATT.

Follow up investigations and observations

1. Complete physical and neurological examination were done at each follow up.

2. Complete blood count and ESR were done to observe the healing response at each follow up.

3. USG of cold abscess if present to observe the resolution/increase in size was done at each follow up.
4. Plain x-ray of the part was done regularly.
5. MRI and/or CT scan were done at 6 months, 12 months and 24 months.

Statistical analysis

At the end of the study the data was collected and analyzed by using Student’s t-test and Chi-square test.