Spinal Tuberculosis

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Introduction

Spinal TB first described by Percival Pott in 1779

“Pott’s disease”
Background

- Found in the remains of Egyptian mummies and in many other human skeletons
21st Century

- Spinal TB makes up a relatively small number of TB patients

- Presentation can be insidious

- Outcome variable and despite treatment can lead to long term disability
Epidemiology of Spinal TB

- Approximately 10% of TB cases affect the skeleton and 5% are in the spine

- 365 number of cases in UK in 2010

- 167 in London
In East London

- Ten year data base 1997-2006 *(Our study)*
- Multidisciplinary clinic since 2004
Pathology of spinal TB

- Haematological seeding from lung
- MTB affects vertebral body which can then spread to discs (discitis)
- Occurs at any level and can be multilevel
- More common in thoracic and lumbar
Figure 7: Involvement of individual vertebrae (total vertebrae = 231)
Pathology of spinal TB

- Can loose complete vertebrae
- Wedge shaped fractures are common
Pathology of spinal TB

- Approx 1/3 have evidence of TB elsewhere
- Approx 1/3 have associated psoas abscess
- Only 25% have an abnormal CXR
Symptoms of Spinal TB

- Back pain (95%)

- 40-50% neurological symptoms – weakness, paresthesia, bowel symptoms

- 40-50% with systemic symptoms – fever, night sweats, weight loss
Difficulty in diagnosis

- Back pain is very common
- Systemic symptoms are often ignored by patient or forgotten by health professionals
Characteristics of patients

- Born in high incidence area
- May have been in UK for sometime
  (average 9.6 years, range 0-50)
Investigations

- Standard bloods plus HIV
- ?IGRA / Mantoux
- CXR
- Samples for AFB whenever possible
CXR

Often normal in non-pulmonary TB

Bloods

May be completely normal
Imaging of Spinal TB

- MRI
- CT guided biopsy
- US guided drainage of collection

ENSURE SAMPLES SENT FOR AFB
Making a diagnosis

- 82 percutaneous biopsies
- 4 open biopsies
- 17 intra-operative samples
- 2 I&D samples
Case history

- 31 year old Somalian patient referred by GP with interscapular pain
- No systemic symptoms; tenderness over T4
Case history
Case history
Case history
Case history

- Admitted and had CT guided biopsy
- Started on treatment – Pharmacy DOT
- Pain improving at 2 months
Psoas abscesses
Medical treatment

- Standard quadruple therapy
- BTS recommend 6 months
- Most experts give 9-12 months
Surgical treatment

- Neurological deterioration
- Spinal instability
- Decompression of abscesses not amenable to radiological drainage
- Post tubercular kyphosis
42 operations

- Open decompression paravertebral abscess: 7 patients
- Instability: 4 patients
- Neuro compression + instability: 12 patients
- Open biopsy: 4 patients
- Isolated neuro compression: 13 patients

16 patients

Anterior
- Instrumented: 8 patients
- Non-instrumented: 1 patient
- Ant + post instrumented: 1 patient

Posterior
- Instrumented: 6 patients
- Non-instrumented: 0 patients
Use of steroids

- Only if evidence of cord compression
- “Double dose” due to rifampicin
Outcome

- Many patients may be left with chronic back pain, but not lose of function (60%)
- Small number paraplegic (4%)
- Some neurological deficit (15%)
Conclusion

- Back pain +/- systemic symptoms
- Get biopsies wherever possible ➔ AFB
- Multidisciplinary care
- At least 6 months treatment +/- steroids
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Questions?