INTRODUCTION AND AIM OF WORK

The failed back surgery syndrome refers to symptoms following back surgery either for spinal stenosis or herniated disc ***(Burton et al., 1981).***

Imaging of the postoperative spine is usually indicated when there is persistence or recurrence of pre-existing symptoms. The symptoms may persist in the immediate postoperative period, within the first few weeks or months, or may be delayed, presenting months or years following the surgery.

Selection of the appropriate imaging modalities depends on the region of the spine involved, the presenting symptoms, and suspected clinical diagnosis, as well as the presence of metallic prosthetic devices or materials ***(Rao et al., 1997)***.

The post-operative changes in lumbar spine can be classified into : early complications which occur within six month post-surgery & late complications which occur after six month post-surgery ***(David et al., 1994)***.

A- The early complications:

1- Epidural haematoma.

2- Residual disc herniation.

3- Infection.

4- Dual tear.

B- The late complications:

1- Epidural fibrosis.

2- Recurrent disc herniation.

3- Residual disc herniation.

4- Spinal stenosis.

5- Arachnoiditis.

6- Facet joint arthropathy.

7- Post fusion syndrome.

C- Miscellaneous:

1- Pseudomeningocoele.

2- Pseudo-arthrosis ***(Rao et al., 1997)***.

For assessment of the post-operative spine preliminary frontal and lateral views in upright position are usually indicated. Plain radiographs allow evaluation of the level and type of surgical procedure initially performed, the additional flexion and extension views in the lateral plain may be indicated to exclude mechanical instability resulting from either the surgical procedure or facet degeneration.

Imaging of post operative spine by MRI is performed mainly for differentiation of epidural fibrosis or scar from residual or recurrent herniated disc. Pre-contrast MR study is performed initially, then we do Gd-DTPA enhanced MRI study. The use of Gd- DTPA enhanced magnetic resonance in the evaluation of scar versus disc has been

examined by several authors, with reported accuracy rates for distinguishing scar from disc in the range of 96 % to 100 % ***(Hueftle et al.,1988)***

The findings may be divided into three categories : (a) scar only ,(b) disc only and (c) scar plus disc .***(Jeffrey,1997)***

The increased detection capabilities is related to the higher spatial and contrast resolution of MRI compared to C.T as well as multiplanner image, and excellent tissue characterization ***(Sharif et al., 1990).***

THE AIM OF THIS WORK

Is to study the role of MRI in evaluating the failed back surgery syndrome of lumbar spine, to differentiate between its different causes and trying to reach the proper diagnosis, so that the patient could receive the proper management.

With some illustrative case presentations with MRI examination will be demonstrated.