بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

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ROLE OF MRI IN FOLLOW UP AFTER SURGERY OF THE SPINE

Essay

Submitted in Partial Fullfillment for the M.Sc. Degree In

Radiodiagnosis

By

Ayman Ahmad Abd El-Aziz El-Mesallamy

Under the Supervision of

Dr. Omar Hussein Omar
Professor of Radiodiagnosis
Faculty of Medicine, Ain Shams University

Dr. Hanan Arafa
Lecturer of Radiodiagnosis
Faculty of Medicine, Ain Shams University

Faculty of Medicine
Ain Shams University
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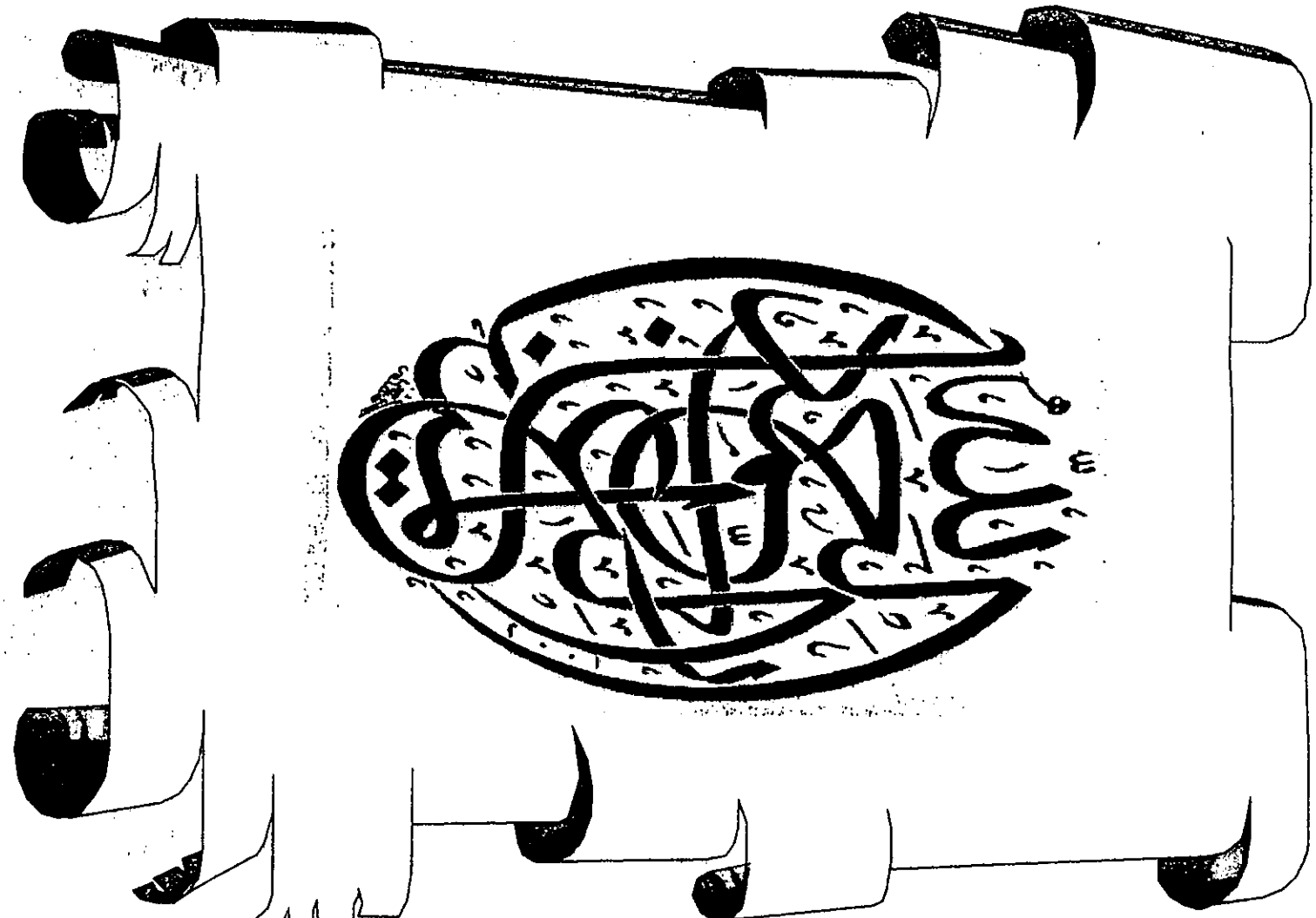

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AL HAMD LELAH ..... first and last for everything in my life.

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INTRODUCTION AND AIM OF THE WORK

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)***.

Unsuccessful surgical outcome is known as the failed back surgery syndrome (**FBSS**). **FBSS** is a complex and poorly understood syndrome, with as many different imaging findings as different possible etiologic mechanisms ***(Van Goethem, 1997)***.

The post-operative complications can be classified into early complications which occur within six months post-surgery & late complications which occur after six months post-surgery ***(David et al., 1994 and Rao et al., 1997)***.

A : The early complications :

1. Epidural haematoma.
2. Post-operative Infection.
3. Dural tear.

B : The late complications :

1. Post-operative spinal stenosis.
2. Epidural fibrosis.
3. Residual or recurrent disc herniation.
4. Arachnoiditis.
5. Pseudo meningocele.
6. Pseudo arthrosis.

For assessment of the post-operative spine preliminary frontal and lateral views 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.

Magnetic resonance imaging (MRI) is the imaging method of choice in the evaluation of patients with recurrent clinical symptoms after operations for disc herniation ***(Grane, 1998)***.

Gadolinium enhancement is commonly used during MRI of patients with persistent back pain following surgery and epidural scar is frequently identified in patients who have had a previous discectomy ***(Wilkson, et al., 1997)***.

The aim of the work

Is to study the role of MRI in follow up after back surgery of the spine specially lumber disc operations and evaluating the failed back surgery syndrome to differentiate between its different causes and trying to reach the proper diagnosis, so that the patients could receive the proper management.

Some illustrative case presentations with different MRI findings will be demonstrated.

Normal Anatomy