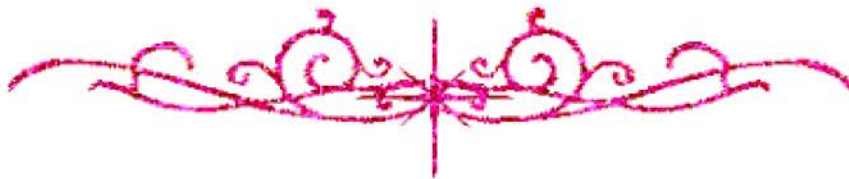


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شبكة المعلومات الجامعية

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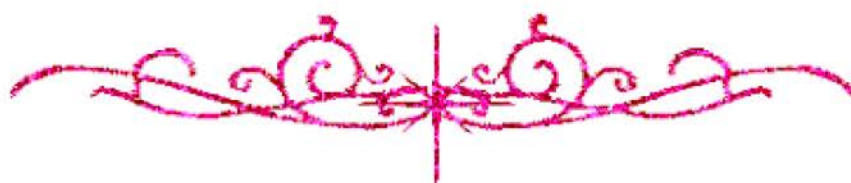
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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

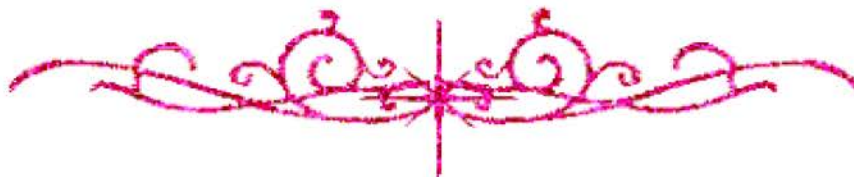
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



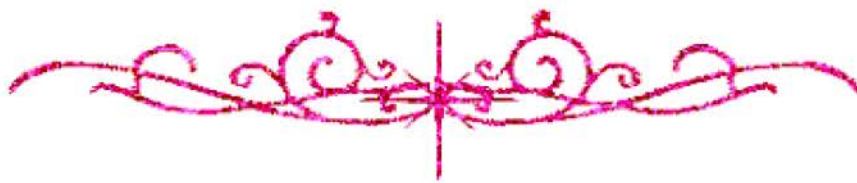
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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل



B 1919E

Magnetic Resonance Imaging of the postoperative Lumbar spine

**Thesis submitted in partial fulfillment for
M.D. degree in Radiodiagnosis**

by
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IN THANKFULNESS TO

*** GOD, I owe all my life.

* The spirit of my father accompanying me in every event of my life.

* My mother that words will never appreciate her love.

* My husband for his sincere cooperation & guidness during the accomplishment of this work.

* With all my hope to my lovely sons
"AMIR & GEORGE".



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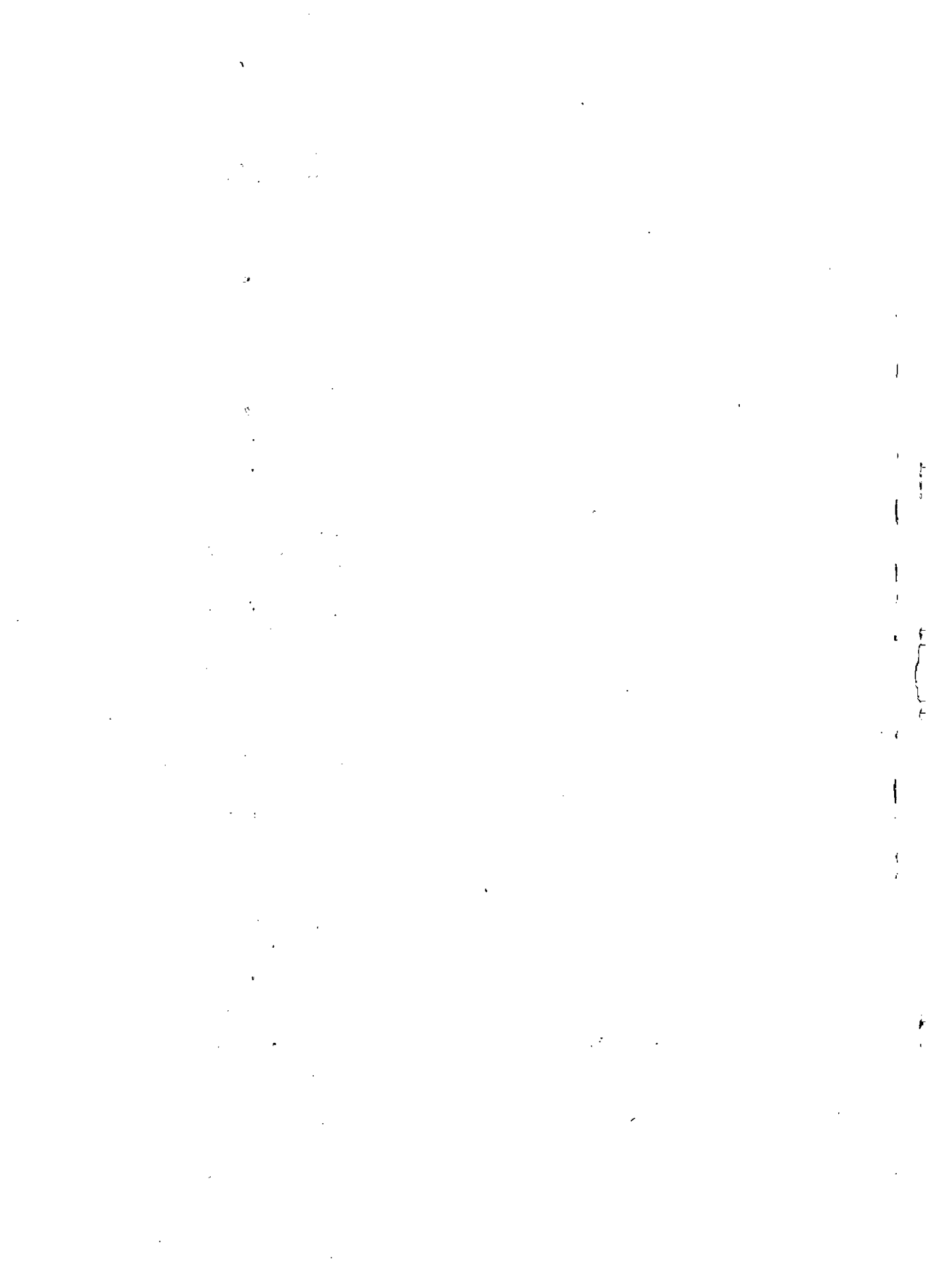
I would like to express my profound & sincere gratitude to **Professor Dr. Hoda Ahmed EL Deeb**, Professor of Radiodiagnosis, Faculty of medicine, Ain Shams University, for her unlimited enthusiastic help which enlightened my way starting from her selection of the subject, valuable instructions and continuous scientific & moral support that led this work come to real.

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I hope for all the patients, sharing in this thesis, good health; wishing that this piece of work will be beneficial for better diagnosis & management.



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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the tools used for data collection.

3. The third part of the document presents the results of the study, including a comparison of the different methods and techniques used. It discusses the strengths and weaknesses of each method and provides a clear conclusion based on the findings.

4. The fourth part of the document discusses the implications of the study and provides recommendations for future research. It highlights the need for further exploration of the issues discussed in the document and suggests specific areas for future study.

5. The fifth part of the document provides a summary of the key findings and conclusions of the study. It reiterates the importance of maintaining accurate records and the need for transparency and accountability in financial reporting.

Appendix A: Data Collection Procedures

LIST OF ABBREVIATIONS

BM = Bone marrow
CHESS = Chemical shift selective saturation
CISS = Constructive interference steady state
CSCS = central spinal canal stenosis
CSF = cerebrospinal fluid
CT = computed tomography
3-D = 3 dimensions
ETL = Echo-train length
FBSS = failed back surgery syndrome
FLASH = Fast low angle shot imaging
FOV = field of view
FSE = fast spin-echo
Gd-DTPA=gadolinium-diethylene-triamine-pentaacetic acid
GRASS = Gradient recalled acquisition in steady state
HNP = herniated nucleus pulposus
LBP = low back pain
LDP = lumbar disc prolapse
LS = left sciatica
LSCS = lateral spinal canal stenosis
M = Matrix size
MIP = Maximum intensity projection
MRI = magnetic resonance imaging
MRM = magnetic resonance myelography
Nex or N = number of averages
RF= radiofrequency
RS = right sciatica
SC = spinal cord
SE = spin-echo
SNR = signal to noise ratio
TE = echo-time
TR = repetition time
T1-WI = T1-weighted image
T2-WI = T2-weighted image

