

DEDICATION

I would like to dedicate this work to my family who supporting me in
everything

To my teachers who never failed to teach and guide me

To my friends who helping me to finish this research

To my husband who encourage me all the time and

To my lovely son

ACKNOWLEDGMENT

Grateful thanks and grace to Allah for guiding and helping me finishing this research.

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Also great thanks for all people who help me to finish this work

ABSTRACT

Analytic descriptive study MRI examination of lumbar inter vertebral disc spine was done for 50Patients in three hospitals in Khartoum state (royal care, alribat, almoalem)

To evaluate the efficiency of MRI image for detections of inter vertebral disc prolapse at lumbar spine.

Study content samples 29 male and 21 female almost all those complaining of lower back pain, this study carried out which equipped by high quality machine 1.5 Tesla.

The result of study found is Disc prolapse affect the lumbar spine in people at the age of 20-80 years old.

And found the axial and sagittal protocol is the best to demonstrate disc prolapse diseases and coronal protocol seldom used in this disease because is better in case of abnormal curve in spine.

Disc prolapse can be detected with MRI by 99%.MRI is procedure to choice in evaluation of inter vertebral disc prolapse. but it is not the only factor to determine the inter vertebral disc prolapse etiology , for that proper history and clinical examination are very necessary to determine the type of image needed , and also allow the technologist to focus the effort of examination at the proper disc prolapse level.

ملخص البحث

أجريت دراسة فحص التصوير بالرنين المغناطيسي في الفقرات القطنية وتتكون المجموعة من 50 مريض في ثلاثه مستشفيات(رويال كير , الرباط,المعلم)لتقييم كفاءة صورة التصوير بالرنين المغناطيسي للكشف عن تدلي القرص بين الفقرات في العمود الفقري

العينة بها 29من الذكور و 21 من الإناث تقريبا جميعهم أولئك الذين يشكون من آلام أسفل الظهر، نفذت هذه الدراسة التي تم تجهيزها من قبل آلة ذات جودة عالية 1.5 تسلا

نتيجة الدراسة وجدت تدلي القرص يؤثر على الفقرات القطنية في الناس في سن 20-80 سنة.

ووجد أن البروتوكول المحوري والسهمي هما الأفضل للتدليل على أمراض هبوط الأقراص وبروتوكول الإكليل نادرا ما يستخدم في هذا المرض لأنه أفضل في حالة منحنى غير طبيعي في العمود الفقري.

اوضحت هذه الدراسة ايضا ان فحوصات الرنين المغناطيسي ذات دقه عاليه لها اثر كبير في اكتشاف أمراض تدلي القرص التي تحدث في الفقرات القطنية لكنه ليس العامل الوحيد لتحديد مسببات تدلي القرص الفقري ، لذلك التاريخ الصحيحوالفحص السريري ضروريان للغاية لتحديد نوع الصورة، وكذلك السماح للتقني أن يركز جهد الفحصعلى مستوى تدلي قرص .

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LIST OF ABBREVIATION

PT	patient
L	Lumber
ALL	Anterior Longitudinal Ligament
PLL	Posterior Longitudinal Ligament
MRI	Magnetic Resonance Imaging
CT	Computed Tomography
T	Tesla
RF	Radio frequency
KW	Kilowatt
PD	Proton Density
FSE	Fast Spin Echo
SE	Spin Echo

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