



Acknowledgment

I would like to thank Allah the creator of all mankind for giving me the courage, strength and wisdom to carry on.

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Dedications

**To my great father who gave me the meaning of patience
and wisdom.**

**To my unique mother who taught me the meaning of faith
and diligence.**

**To all patients men who have been troubled with this
condition.**

ABSTRACT

Back ground

Spectroscopy has been recognized as a safe and non invasive diagnostic method that coupled with MRI techniques, allows for the correlation of anatomical and physiological changes in the metabolic and biochemical processes occurring in a previously determined volume in the brain.

Diagnosis of primary and secondary brain tumors and other focal intracranial lesions based on imaging procedures alone is still a challenging problem. Magnetic resonant spectroscopy gives completely different information related to cell membrane proliferation, neuronal damage, energy metabolism and necrotic transformation of brain or tumor tissues.

خلاصة البحث

قد تم الاعتراف بالمنظار للتصوير الطيفي المغناطيسي كوسيلة من وسائل التشخيص الغازية الآمنة التي جانب تقنيات التصوير بالرنين المغناطيسي، ويسمح بارتباط التغيرات التشريحية و الفيزيولوجية في عمليات التمثيل الغذائي والبيوكيميائي التي تحدث في وحدة تخزين التي سبق تحديدها في الدماغ. تشخيص أورام الدماغ الأولية و الثانوية والافات داخل القحف على أساس اجراءات التصوير وحده لايزال مشكلة التصوير الطيفي المغناطيسي الرنان يعطي معلومات مختلفة تمام متعلقة بتكاثر الخلايا الغشائية، تلف الخلايا العصبية، والتمثيل الغذائي للطاقة والتحول نخرية من الدماغ أو اورام الأنسجة. وصف الطيف من التحليل الطيفي بالرنين المغناطيسي في افات الدماغ و اظهار أهميتها التشخيصية في تمييز الافات داخل المخ من أورام وغير أورام وغيرها.

دراسة وصفية من 25 مريض أجرى لهم فحص التصوير الطيفي بالرنين المغناطيسي- في الفترة من فبراير 2013 حتى مايو 2015. تم جمع جميع النتائج وقد تم تحليل البيانات الكترونيا وتفسيرها في جدول ورسوم بيانية دائرية.

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LIST OF APPREVIATIONS

MRS	magnetic resonant spectroscopy
NMR	nuclear magnetic resonant
H	hydrogen
2D, 3D	2dimentional, 3dimentional
TE	time to echo
TR	time to repeat
FID	free induction decay
BO	static magnetic field
CSI	chemical shift imaging
ADC	apparent diffusion co efficient
DW	diffusion weighted
RF	radio frequency
Cr	creatine
Ch	choline
NAA	N acetyl aspartate
MI	mioinositol
GIX	glutmin,glutamate complex
Ppm	parts per million
ACR	American college of radiology
ASNR	American society of neuroradiology
FDA	food and drug agency
AJR	AMERICAN JOURNAL OF RADIOLOG
R.C.IH	ROYAL CARE INTERNATIONAL HOSPITAL

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Fig 2: distribution of patient age

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