

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى :

﴿ يَرْفَعُ اللَّهُ الَّذِينَ ءَامَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ ۚ وَاللَّهُ بِمَا

تَعْمَلُونَ خَبِيرٌ ﴿١١﴾

صدق الله العظيم

الآية (11) سورة المجادلة

Dedication

*To my parents for the gangrenous
and endless support through all my
life.*

To my brothers

To my large family

To my friends

*To my dear teachers and colleagues
for their patience, understanding
supports .*

And to Me .

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to

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not been accomplished.

My thanks also go to MEdhat Almasry Garash International

hospitals

Deep thanks to my family for their consistent mental support

finally ,

I would like to thanks my friend .

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List of Abbreviation

Abbreviation	Full word
MRI	Magnetic Resonance Imaging
IOP	IntraOcular Pressure
PDP	Pattern Discrimination Perimetry
PMMA	PolyMethyl MethAcrylate
ECCE	ExtraCapsular Cataract Extraction
ICCE	IntraCapsular Cataract Extraction
YAG	Yttrium Aluminum Garnet
RD	Retinal Detachment
RP	Retinitis Pigmentosa
DM	Diabetes Mellitus
IDDM	Insulin Dependent Diabetes Mellitus
NIDDM	Non Insulin Dependent Diabetes Mellitus
CT	Computed Tomography
OM	OrbitoMaitaus
IOML	Inter Orbital Midline
ONSD	Optic Nerve Sheath Diameter
OND	Optic Nerve Diameter
SD	Sheath Diameter
ICP	Intracranial Pressure
FLAIR	Fluid Attenuated Inversion Recovery
MS	Multiple Sclerosis
VEP	Visual Evoked Potential

Abstract

Diabetes is a common cause of damage to the optic nerve. The body's incapable of metabolizing sugars properly, resulting in high levels of glucose within the blood. When left untreated for prolonged periods, may result in blindness due to damage in the optic nerve.

The main objective of this study is to measure the Optic Nerve IN Diabetic Patient Using MRI.

The study was carried out during the period from June to November **2014** at Garash international hospital.

The total sample under study were 50 (30 of them had diabetes and 20 as control group in both genders) there ages between 30 – 90 years old .

All sample were examined in coronal and sagittal cuts where measure of widths and length of the optic nerve .

The measurement were correlate with patients ages and duration of diabetes.

The coronal measurement of the optic nerve in diabetic patient group were decreased by 0.006 as the age increased and From the sagittal measurement of the optic nerve in diabetic patient group when decreased by 0.001 as the age increased with is mean the patient age effect the optic nerve diameter in widths and length .

The coronal measurement of the optic nerve in diabetic patient group were decreased by 0.009 as the duration of diabetic increased and From the sagittal measurement of the optic nerve in diabetic patient group when decreased by 0.002 as the duration of diabetic increased and that is mean when the duration of diabetic increased the measurements of the optic nerve decreased .

MRI has great value in measurements of the optic nerve diabetic Patient .

مستخلص البحث

مرض السكري سبب رئيسي في تلف العصب البصري . حيث يواجه الجسم في الغالب مشاكل في استقلاب السكر مما ينتج زيادة في كمية الجلوكوز في الدم . و عندما تترك دون علاج لفترة من الزمن قد تؤدي الي العمى نتيجة عن تلف العصب البصري .
الهدف الرئيسي من هذه الدراسة هو قياس العصب البصري لمرضى السكري باستخدام التصوير بالرنين المغناطيسي .

اجريت هذه الدراسة في الفترة من يونيو الي نوفمبر من عام 2004 بمستشفى جرش الدولي .

العينة المستخدمة في هذه الدراسة 50 مريض 30 منهم يعانون من مرض السكري و 20 كمجموعة ضابطة نصف المجموعة من الرجال و النص الاخر من النساء تتراوح اعمارهم بين 30 - 90 سنة خضعوا جميعهم لتصوير العيون بالرنين المغناطيسي .
أخذت المقاطع التاجية و الراسية لجميع الحالات لأخذ قياسات عرض و طول العصب البصري .

تمت مقارنة نتائج الدراسة مع أعمار المرضى و مد إصابتهم بمرض السكري .
من المقاطع التاجية لمجموعة مرضى السكري وجدنا ان السكري يقلل من عرض العصب البصري بمقدار 0.006 مم كلما زاد العمر بينما يقل الطول بمقدار 0.001 مم وفقا للمقاطع الراسية و هذا يعني أن عمر المريض يؤثر في قياسات العصب البصري .
و من نتائج هذه الدراسة أيضا وجدنا في المقاطع التاجية للعصب البصري لمرضى السكري ان عرض العصب البصري يقل بمقدار 0.009 مم كلما زادت مدة المرض و من المقاطع الراسية وجدنا ان الطول يقل بمقدار 0.002 مم و هذا يعني أن زيادة مدة الإصابة بمرض السكري تقلل قياسات العصب البصري .

للرنين المغناطيسي دور كبير في قياسات العصب البصري لمرضى السكري .