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Dedication

To my mother, with love for her continued love and support during all the way to my family for their effort, patience, support & understanding through the period of my research

To my brother idress for his continuous encouragement and support through all my years of study
Acknowledgment

I am greatly indebted to my supervisor Dr Hussein Ahmed Hassan for his continued help, support and valuable guidance.
Also I would like to thank all staff member at MRI department at Modern Medical Center for help and support.
My great thank extend to my family for encouragement & support.
### ABBREVIATIONS

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<tr>
<td>Acc</td>
<td>Anterior cingulate circuit</td>
</tr>
<tr>
<td>AD</td>
<td>Alzheimer Disease</td>
</tr>
<tr>
<td>C N</td>
<td>caudate nucleus</td>
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<tr>
<td>DLPFC</td>
<td>Dorsolateral prefrontal Circuit</td>
</tr>
<tr>
<td>FSE</td>
<td>fast spin Echo</td>
</tr>
<tr>
<td>Flair</td>
<td>fluid attenuated inversion recovery</td>
</tr>
<tr>
<td>FTLD</td>
<td>frontotemporal lobar degeneration</td>
</tr>
<tr>
<td>FTD</td>
<td>frontotemporal Dementia</td>
</tr>
<tr>
<td>MRI</td>
<td>Magnetic resonance imaging</td>
</tr>
<tr>
<td>MMSE</td>
<td>mini - mental state Examination</td>
</tr>
<tr>
<td>MM</td>
<td>Millimeter</td>
</tr>
<tr>
<td>ICV</td>
<td>intracranial Volume</td>
</tr>
<tr>
<td>Lt</td>
<td>Left</td>
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<tr>
<td>OFC</td>
<td>Orbit Frontal Circuit</td>
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ABSTRACT

The study aimed to measurement the Caudate nucleus volume using MRI as gold standard because of its high efficiency in measurement of caudate nucleus disorder.

This study was conducted at modern medical center where there was enough cases and availability of require MRI machine and material to perform proper measurement.

Sixty patients, 30 male and 30 female of suspected Caudate nucleus pathology of different ages and genders under went MRI for brain.

The result equation of MRI was noted that in both male and female the length of right Caudate nucleus is larger than that of the left Caudate nucleus the width in both male and female the right width of Caudate nucleus is larger than that of the left Caudate nucleus and is no different between male and female volume.

The volume of the both male and female is decrease when the age is increase.The result confirmed that continuous study used that patients index soft measurement and pathology of Caudate nucleus.
ملخص الدراسة

استهدفت الدراسة قياس حجم النواة الزنيلية بالرنين المغناطيسي نسبة للكفاءة ودقتة في قياس النواة الزنيلية.

أجرت هذه الدراسة في المركز الطبي الحديث حيث توفر الحالات المرضية الكافية لهذه الدراسة بالإضافة إلى الأجهزة اللازمة والمواد المطلوبة لإجراء الفحوصات.

أخذت العينة من 60 مريض من اثاث وزكور في اعمار مختلفة يعانون من امراض في المخ، وواصلت الدراسة أن طول النواة الزنيلية في الرجال والنساء بالجهة اليمنى اطول من الشمال.

وطول عرض النواة للرجال والنساء في اليمين أكبر من الشمالي كما أن لابد وجود فرق في حجم النواة الزنيلية في الرجال والنساء.

كذلك توصلت الدراسة إلى أنه كلما تقدم الشخص في العمر كلما قُل حجم النواة الزنيلية.

و من هذه النتائج نوصى Bermد من الدراسة باستخدام طول وزن المريض وكذلك امراض النواة الزنيلية وبالاعتماد استخدام اجهزة متقدمة.

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