الاية

بسم الله الرحمن الرحيم

هَلْ أَتَى عَلَى الْإِنسَانِ حِينٌ مِّنَ الدَّهْرِ لَمْ يَكُن شَيْئاً مَّذْكُوراً{1} إِنَّا خَلَقْنَا الْإِنسَانَ مِن نُّطْفَةٍ أَمْشَاجٍ نَّبْتَلِيهِ
فَجَعَلْنَاهُ سَمِيعاً بَصِيراً{2} إِنَّا هَدَيْنَاهُ السَّبِيلَ إِمَّا شَاكِراً وَإِمَّا كَفُوراً{3

صدق الله العظيم

سورة الانسان الايات من 1-3

Dedication

My parents …

Thank you for your unconditional support with my studies, I am honored to have you as my parents

Thank you for giving me a chance prove and improve myself through all my walks of life

Thank you for believing in me, for allowing me to further studies

My brothers …

Thank you a lot for your supports

Thanks for anyone who helped me…

Acknowledgement

This work was carried out under the auspices of Allah.

I would like to express my deep gratitude to my supervisor Professor Caroline Edward Ayad for her helpful guidance and consistence through the study.

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Abstract

Intracranial physiological calcifications are unaccompanied by any evidence of disease and have no demonstrable pathological cause. They are often due to calcium and sometimes iron deposition in the blood vessels of different structures of the brain.

This study was done to assess the incidence of intracranial physiological calcifications and the relation with age as well as the calcium level in the blood.

The study was done in Khartoum state in: Khartoum Teaching Hospital and Elniline Medical Center, 50 patients were included in the study; 27 males and 23 females with age range between14-74.

The main findings of this study were that:

Intracranial calcifications are more common in males than females, the pineal gland has highest incidence in the sample data by 78%, the pineal gland scored high degree of calcification by mean of CT number value 192.7HU.

When correlated the calcifications with age the pineal gland calcification CT number values were decreased by age, while the Rt and Lt choroid plexuses values were increased.

When correlated blood Ca^{++} level with calcifications, the pineal gland and habenula calcification had positive relationship, whereas the Rt and Lt choroid plexuses had negative relation as well as the falx had negative relation

CT scan has value in detection of brain calcifications.

الخلاصه

التكلسات الوظيفيه التى تحدث داخل الراس لاتحدث باى سبب مرضى, وهى غالبا ناتجه عن ترسب الكالسيوم وفى بعض الاحيان الحديد داخل الاوعيه الدمويه فى الاجزاء المختلفه من المخ.

هذه الدراسة عملت لتقييم حدوث التكلسات الطبيعيه التى تحدث داخل المخ والعلاقه مع العمر ومستوى الكالسيوم فى الدم.

الدراسة عملت فى ولاية الخرطوم فى مستشفى الخرطوم التعليمى و مركز النيلين الطبى.

مريض تمت دراستهم منهم 27 زكور و23 اناث بمعدل عمرى بين 14- 50 سنه 74.

النتائج الرئيسية من هذه الدراسه كانت كالتالى:

التكلسات التى تحدث داخل الراس هى اكثر فى الرجال من النساء,الغده الصنوبريه لديها حدوث عالى فى بيانات العينه ب 78%,الغده الصنوبريه احرزت اعلى درجه من التكلس بمتوسط مقداره 192.7وحده هاونسفيلد

عندما تم ربط التكلسات مع العمر, التكلس فى الغده الصنوبريه قل مقداره مع العمر, فى حين ان الضفائر المشيميه اليمنى واليسرى زاد مقدارهما هع العمر.

عندما تم ربط مستوى كالسيوم الدم مع التكلسات وجد ان تكلس الغده الصنوبريه والهابنيلور كان لديهما علاقه ايجابيه, بينما تكلس الضفائر المشيميه اليمنى واليسرى كان لديهما علاقه سالبه بنفس الطريقه منجل المخ كان لديه علاقه سالبه مع كالسيوم الدم.

الاشعه المقطعية قيمه فى اكتشاف تكلسات المخ

List of Abbreviations

Abbreviation	Full name
ICC	Intracranial Calcification
PC	Physiologic Calcification
CT	Computed Tomography
CTNo	Computed Tomography number
Ca^{++}	calcium
CNS	Central Nervous System
CSF	CerebroSpinal Fluid

RT	Right
LT	Left
SWS	Strug-Weber Syndrome
TS	Tuberous Sclerosis
NF	Neuro Fibromatosis
CS	Cackayne
GS	Gorlin Syndrome
AVM	Arteriovenous Malformation
TORCH	Toxoplasmosis Rubella Cytomegalovirus Herpes simplex virus
CMV	Cytomegalo virus
HSV	Herpes Simplex Virus

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