

#### بسم الله الرحمن الرحيم

## Sudan University of Science and Technology



College of Graduation Studies

MSc Diagnostic Radiologic Technology

# Characterization of nasal septum in Sudanese patients using computerized tomography

توصيف الحاجز الأنفي للمرضى السودانيين باستخدام الأشعة المحوسبه

Thesis submitted for partial fulfillment of M .Sc degree in Diagnostic Radiological Technology

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المنور المراق

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المناكاة والمناكاة

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## Dedication

To my parents

To my family

To all whom aid me to complete this work...

## **Acknowledgement**

Traise and thanks are to Allah the lord and creator of the world.

I would like to specify my acknowledgement to my supervisor Dr. Caroline Edward Ayad for sincere supervision and guidance. My thanks extend also to all the technicians staff in hospitals whom help me in this research.

#### **Abstract**

Nasal septum is the thin sheet of cartilage and bone, that separates the left and right airways in the nose, dividing the two nostrils. It depressed by the depressor septi nasi muscle.

This study was executed to demonstrate variation in nasal septum measurements and dimensions .the study was conducted at CT department in Ibn Alhaitham center Royal Care hospital and Modern Medical center. This was expanded from August 2014 up to November 2014

80 patients referred to CT department for sinuses examination ,both genders were included ,40were males and 40were females, axial and coronal sections were obtained and nasal septum length was measured ,as well as the distant from nasal septum to medial border of maxillary sinuses. Nasal septum length was found to be 28.4 mm and 27.14 mm in both males and females.

Measurements were correlated with age, there are linear relationship between the age and the selected values.

Multi detector computed tomography is modality of choice to Characterize nasal septum in the studded area .

#### ملخص الدراسه

الحاجز الانفي عباره عن شريحه رقيقه من الغضروف والعظام. تفصل مجرى الهواء في الانف الى يمين ويسار وتقسم الانف الى فتحتين.

اجريت هذه الدراسه لمعرفة الاختلافات التشريحيه لقياسات الحاجز الانفي وابعاده وذلك في اقسام الاشعه المقطعيه بمركز ابن الهيثم التشخيصي ورويال كير والمركز الطبي الحديث ، وذلك ف الفتره مابين اغسطس 2014 الى نوفمبر 2014

ثمانين مريض تم تحويلهم الى قسم الاشعه المقطعيه بطلب فحص اشعه مقطعيه للجيوب الانفيه (40 من النساء) من مختلف الاعمار ؛ وقد خضع جميع المرضى لاجراء الوضعين (التاجي والافقي) وذلك لقياس طول الحاجز الانفي والمسافه بينه وبين الحدود الوسطى للجيوب الفكيه. طول الحاجز الانفى وجد 28.42مم و 27.14مم للرجال والنساء.

القياسات بارتباط العمر، وجد هنالك علاقه خطيه بين العمر والقيم المختاره.

اوضحت الدراسه ان الاشعه المقطعيه متعددة المجسات هي الخيار الامثل لتوصيف قياسات الحاجز الانفى في منطقة الدراسه.

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