

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

﴿قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا

﴿مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

سورة البقرة

الآية (32)

DEDICATION

I dedicate the research to my family and many friends. A special feeling of gratitude to my parents, whose words of encouragement and push for tenacity ring in my ears.

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Abstract:

The objective of this prospective study were to evaluate the normal transverse abdominal aorta diameter in normal Sudanese patient using CT scan and correlate the measurements to the mean of patients' age, body surface area (BSA) and body mass index (BMI).

100 patients without cardiovascular disease with ages ranged between (18 - 20) years were included and patients with cardiovascular problems and congenital aortic anomalies were excluded. Axial CT with contrast image were obtained using CT machine with 120 KVP and 10mAs in the Radiology department (Modern Medical Center and Military Hospital).

The measurements of aorta were taken at the levels of T12 to L3 in cms for both ganders.

The results showed that the mean transverse diameter of abdominal aorta at levels of T12, L1, L2 and L3 in females were (1.89 ± 0.2) , (1.69 ± 0.2) , (1.5 ± 0.1) and (1.45 ± 0.1) cms and in males were (2.1 ± 0.3) , (1.91 ± 0.3) , (1.68 ± 0.2) and (1.54 ± 0.2) cms respectively.

. Linear relationships between age, BMI and BSA and the Aorta transverse diameter (ATD) were noticed.

The transverse measurement for abdominal aorta in Sudanese peoples deferens from other populations.

ملخص الدراسة:

الهدف من هذه الدراسة كان تقويم القطر العرضى الطبيعى للشريان الاورطى البطنى لدى المرضى السودانين باستخدام الاشعة المقطعية الملونة للبطن وربط علاقتها مع العمر ومؤشر كتلة الجسم ومساحة سطح الجسم .

وتم اخذ العينة من (100) مريض اعمارهم تتراوح بين (18-80) سنة . وجميع العينة لا يعانون من اى مشاكل فى الجهاز القلبي الدموى او تشوهات خلقية فى الابهر . واى مريض يعانى من هذه المشاكل تم استبعادهم من العينة . تم استخدام جهاز الاشعة المقطعية لقياس عرض الشريان الاورطى البطنى فى المحور الافقى بعد اعطاء المريض مادة ملونة للتباين وذلك فى اقسام الاشعة المقطعية بالمركز الطبي الحديث والسلاح الطبى.

تم قياس الشريان الاورطى من مستوى الفقرة الصدرية الثانية عشر الى الفقرة البطنية الثالثة بالسنتمترات للذكور والاناث.

اوضحت النتائج ان متوسط عرض الشريان الاورطى البطنى عند مستوى الفقرة الصدرية الثانية عشر وال فقرات البطنية الاولى والثانية والثالثة عند الاناث (0.2 ± 1.89) و (0.2 ± 1.69) و (0.1 ± 1.5) و (± 1.45) و (0.1) سم وعند الذكور (0.3 ± 2.1) و (0.3 ± 1.91) و (0.2 ± 1.68) و (0.2 ± 1.54) على التوالى.

وجد ان هنالك علاقة خطية بين العمر ومؤشر كتلة الجسم ومساحة سطح الجسم مع القطر العرضى للشريان الاورطى البطنى .

وجد ان هنالك اختلاف بين القطر العرضى للشريان الاورطى البطنى لدى السودانين مقارنة مع الدراسات السابقة.

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