

قال تعالى :

(قل لو كان البحر مدادًا لكلمات ربي لنفد البحر قبل ان تنفد كلمات

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Dedication

*This thesis work is dedicated to my loved mother, Alzahra, for all the inspiration,
and Prayers,*

to the memory of my Father, Fadlallah for all the spirit of knowledge,

to my big family for the constant support and encouragement.

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Abstract

The objective of this clinical study was to establish normal values of femoral artery dimension and compare between the diameter for abdominal aorta at its bifurcation to left and right femoral artery using Multi Detector Computed Tomography, and to find the effect of gender on the size of the femoral artery. Abdominal part (aorta at bifurcation) and femoral artery was measured at three sites in the femur of 100 healthy subjects using RadiAnt DICOM viewer system. The study showed that the dimension of abdominal aorta and the right and left femoral artery its slightly bigger in male than female in average it was 16.74 to 16.17 and for right and left side; femoral artery bigger in male than female in average 8.25 to 7.39, all these differences were inconclusive using t-test except the medium (0.047) and upper right femoral artery (0.003). the results also showed that there is strong correlation between the right and left femoral artery; concerning the lower, medium and upper femoral artery 0.78, 0.88 and 0.66 respectively, and in paired t-test there is no significant difference between medium, upper right and left femoral artery at $p = 0.05$ while lower part of the femoral artery concerning the right and left side showed significant differences $p = 0.02$. The important impression in this study is that the diameter of the femoral part (lower, medium and upper) can be estimated from the size of the aorta at bifurcation as normal dynamic, since the size at bifurcation was normal.

And when compare the diabetic patients and hypertensive patients with normal as control group.

The diameter measurement of abdominal aortic at its bifurcation to right and left femur artery and the study sample diabetic patients and hypertensive and which is bigger than that of hypertensive patients (7.41 mm) and diabetic (5.91 mm) patients, for abdominal aorta bifurcation of hypertensive patients the diameter was (17.18 mm) which is bigger than the normal (16.47 mm) and diabetic patient's which is (14.89 mm).

diameter of abdominal aorta and its bifurcation to left and right femoral artery show that the hypertensive patients showed bigger diameter than the normal and diabetic patients, and the dimension of left and right femoral artery the normal patients showed bigger diameter than hypertensive and diabetic patients.

ملخص الدراسة

الهدف من هذه الدراسة هو انشاء قيم طبيعية لأبعاد الشريان الفخذي و قطر الشريان الأورطى البطني عند تفرعه إلى الشريان الفخذي الأيمن والأيسر باستخدام جهاز الأشعة المقطعية متعددة الكواشف، بالإضافة إلى توضيح أثر النوع على حجم الشريان الفخذي حيث تمت القياسات في ثلاثة مواقع على 100 شخص من الأصحاء.

أظهرت الدراسة أن أبعاد الشريان الفخذي وكذلك الأورطى البطني عند تفرعه إلى الشريان الفخذي الأيمن والأيسر هي أكبر قليلاً عن الذكور عن الإناث حيث وجد أن متوسط قياس الأورطى البطني هي (18.17 : 16.74) الذكور للإناث، وبالنسبة إلى الشريان الفخذي الأيمن والأيسر متوسط القياس كان بنسبة (8.25 : 7.39) الذكور للإناث.

كل هذه الاختلافات غير حاسمة باستخدام اختبار (ت)، باستثناء المتوسط والشريان الفخذي الأيمن والعلوي.

وأظهرت النتائج أيضاً أن هنالك علاقة قوية بين الأورطى البطني وشرياني الفخذ الأيمن والأيسر وتفصيلها هو بالنسبة للشريان السفلى (0.78) والمتوسط (0.88) والعلوي (0.66).

وباستخدام الاختبار الازدواجي لم يكن هناك فرق بين الجزء الأوسط والجزء العلوي من الشريان الفخذي الأيمن والأيسر ($P=0.05$) ولكن بالنسبة للجزء الأسفل منه للشريان كان هناك فرق كبير بين الشريان الأيسر والأيمن ($P=0.02$).

الانطباع المهم من هذه الدراسة هو أن قطر الجزء للفخذ الأسفل والوسط والأعلى يمكن تقديره من حجم الشريان الأورطى عند التشعب في حالة ديناميكية وحجم طبيعيين.

ولمزيد من المقارنة تم مقارنة أحجام الشرايين المعنية لمرضى السكري ومرضى ارتفاع ضغط الدم مع مجموعة من المرضى العاديين.

أظهر مرضى ارتفاع ضغط الدم قطر أكبر للشريان الأورطى البطني من مرضى السكري والمرضى العاديين وفي الوقت نفسه، بالنسبة للشريان الفخذي أظهر المرضى العاديين قطر أكبر من مرضى السكري وكذلك مرضى ارتفاع ضغط الدم.

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Abbreviation

CAD:	Coronary Artery Disease.
CT:	Computed Tomography.
CVD:	Cardiovascular Disease.
LLDs:	Lower Limb Disorders.
MDCTA:	Computed Tomography Angiography.
MI:	Myocardial Infarction.
PAD:	Peripheral Arterial Disease.
PT:	Prothrombin Time.
PTT:	Partial Thromboplastin Time.
PVD:	Peripheral Vain Disease.
SMA:	Superior mesenteric arty.

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