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بالرسالة صفحات
لم ترد بالأصل

Magnetic Resonance Angiography Versus Colour Guided Duplex Ultrasound in the Evaluation of Proximal Lower limb Arterial Diseases

MD thesis submitted for partial fulfillment of the requirements of MD
Degree in radiodiagnosis

By

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Under the supervision of

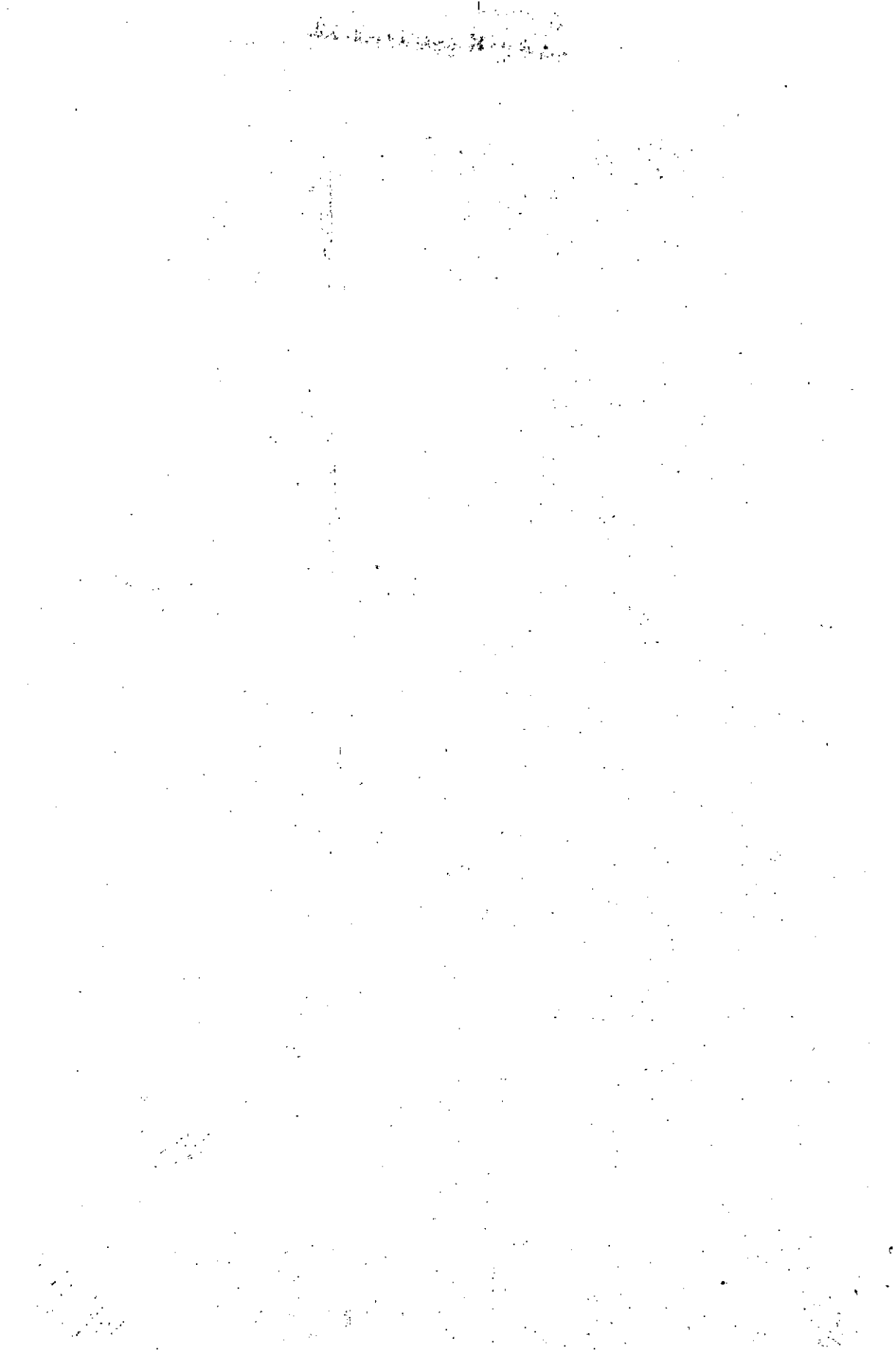
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للحصول على درجة الدكتوراه فى الأشعة التشخيصية

عنوان الرسالة باللغة الأجنبية:-

**Magnetic Resonance Angiography versus Colour Guided
Duplex ultrasound in the evaluation of proximal lower
limb arterial diseases**

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Abstract

Atherosclerotic occlusive disease of the lower extremity is one of the most frequent clinical problems confronted by vascular surgeons today. It is an important cause of morbidity in developing countries.

Before peripheral vascular surgery, it is necessary to evaluate accurately the whole arterial system of the extremity. Digital subtraction angiography is considered the gold standard. However the invasiveness of the procedure, contrast reactions and radiation exposure led to the need for less and non-invasive imaging techniques.

AIM OF WORK

to evaluate the diagnostic performance of contrast-enhanced magnetic resonance angiography (CE-MRA) and colour Doppler sonography (CDS) in the assessment of proximal lower extremity atherosclerotic disease using the digital subtraction angiography (DSA) as the standard of reference.

PATIENTS AND METHODS

The present study included 56 patients with age ranged from 39- 73 years (mean 61.5). Patient's population consisted of 42 males and 14 females presented with symptomatic peripheral arterial disease. 52 patients were studied with CCDS, CE-MRA (using the moving-table technique) and DSA .The arterial tree was divided into distal abdominal aorta and 9 iliofemoropopliteal segments. Each segment was analyzed for the presence of stenosis or occlusion and the results of both CCDS & CE-MRA were compared to DSA.

RESULTS

Our results revealed that CE-MRA had a better discriminatory power than CCDS, both CCDS and CE-MRA showed excellent agreement with DSA. Both methods may demonstrate more patent vessels not seen by DSA.

Finally we can recommended that , Management of the femoropopliteal disease can be based upon CCDS alone in the great majority of cases However, where there is a disease in the aortoiliac segment, or where infrapopliteal revascularization is long considered both CCDS and CE-MRA should be performed to maximize pre-operative information. DSA may be spared for patients who are candidate for interventional procedures (e.g. angioplasty or stent application).

Key Words: Lower limb atherosclerosis, CE-MRA, moving table technique, CCDS , DSA , Non-invasive vascular imaging.

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