بسم الله الرحمن الرحيم

قال تعالى:- (رب أشرح لي صدري ويسر أمري ⋆ وأحلل عقدة من لساني ⋆يفقهوا قولي)

صدق الله العظيم

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Dedication

To the soul of my parents.

To my great sister.

To my Colleges.

To my teachers.

To my friends.

Acknowledgment

I do appreciate the continuous help of Dr. Elsafi Ahmed Abdalla for his supervision and encouragement.

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Abstract

Infertility is one of the most common diseases in Sudan. This research was done in College of Radiological Sciences and technology (u/S department).

The main objective of this research was to estimate the role of colour Doppler ultrasound (u/s) in evaluating uterine artery blood flow of infertile patients.

In this research 31 female infertile patients were studied, using transabdomenal and color Doppler ultrasound to study the uterine artery Doppler indices pulsatility index, resistive index and peak systolic to end diastolic ratio (RI, PI, PS/ED). These indices were compared relative to patient age, duration of infertility and size of the uterus. These findings were compared with control group.

The researcher concluded that, there is a significant difference in pulsatility index and resistive index (RI, PI) of infertile patients and normal fertile women, but in peak systolic to end diastolic ratio (PS/ED) the difference was in conclusive.

مستخلص البحث

يعتبر العقم واحداً من الأمراض الشـائعة فـى السـودان . أجرى هذا البحث الذى يهتم بمسألة العقم في قسم الموجـات فوق الصوتية لكلية علوم الأشعة . وكان الهدف منه تقييـم دور الدوبلر فى الشريان الرحمى لدى مرضى العقم .

وقد قامت الباحثه بإجراء فحوصات على عدد 31 مريضه باستخدام طريقة الموجات الصوتية البطنية والملونه (دوبلر) ، لتصوير مؤشرات الدوبلر للشريان الرحمى (PI, RI, PS/ED) . وقـد تمـت مقارنـة هـذه المؤشـرات مـع الأعمـار النسـبية للمريضات ومدة العقم وحجـم الرحـم . وأخيـراً تمـت مقارنـة النتائج المتحصل عليها مع نفس النتائج بالنسبة للمريضات فـى مجموعة الضبط. وقد خلصت الباحثه إلى أن هناك فرقاً مهمـاً بالنسـبة لمؤشـرات الـدوبلر (RI, PI) بيـن النسـاء المصـابات بالعقم والنساء غير المصابات . أما بالنسبة لمؤشر PS/ED فلا يوجد فرق قاطع .

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Abbreviations

US	:	Ultrasound.
RI	:	Resistive Index.
PI	:	Pulsatility Index.
PS/ED	:	Peak Systolic to End Diastolic Ratio.
r	:	Correlation co-efficient
p	:	Probability
S	:	Standard Deviation.
TAS	:	Trans abdominal scanning.
EVS	:	Endovaginal scanning.