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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

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The Accuracy of Ultrasound Shear Wave Elastography in the Diagnosis of Adenomyosis

Thesis

Submitted for the partial fulfillment of MD Degree
In ***Obstetrics and Gynecology***

By

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Master degree in obstetrics and gynaecology

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بسم الله الرحمن الرحيم

قالوا

سبحانك لا علم لنا
إلا ما علمتنا إنك أنت
العليم الحكيم

صدق الله العظيم

سورة البقرة الآية: ٣٢

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Amr Mohamed Abdel Hady Sayed

ABSTRACT

The accuracy of Ultrasound shear wave elastography in the diagnosis of Adenomyosis

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Aim: this study aims to assess the accuracy of shear wave elastography in the diagnosis of uterine adenomyosis compared to that of MRI.

Methodology: 50 patients planned for hysterectomy due to some gynaecological indications completed this study. Preoperative diagnosis of uterine adenomyosis was done by TVS, SWE and MRI . The diagnostic accuracy of each of these methods was done versus histopathological examination as the gold standard test.

Results: twenty seven patients (54%) had histopathological diagnosis of uterine adenomyosis. The clinical manifestations that may be related to uterine adenomyosis were AUB (43%) and chronic pelvic pain (44%). The specificities of TVS, SWE and MRI are comparable, while, the sensitivity of TVS is non-significantly less than those of either SWE or MRI . The sensitivity of SWE and MRI were comparable.

Conclusion: Prevalence of adenomyosis in premenopausal patients who underwent hysterectomy is 54%. SWE and MRI have comparable specificities and sensitivities in the diagnosis of uterine adenomyosis. TVS has specificity in line with those of SWE or MRI , but with sensitivity non- significantly less than each of them.

List of Contents

Title Page No.

List of Tables

Table No.	Title	Page No.

List of Figures

List of Abbreviations

Abb.	Full term

AIs: .....Aromatase inhibitors.
ARFI: .....Acoustic radiation force imaging.
ART: .....Assisted reproductive technique.
COCs: .....Combined oral contraceptives.
COX-2: .....Cyclooxygenase – 2.
CT: .....Computerized tomography.
DIE: .....Deep infiltrating endometriosis.
DNG: .....Dienogest.
EMI: .....Endometrial myometrial interface.
EMID: .....Endometrial myometrial interface disruption.
EMT: .....Epithelial – to – mesenchymal transition.
GnRHa: .....Gonadotrophic releasing hormone agonist.
HDI: .....Histone deacetylase inhibitor.
HRT: .....Hormone replacement therapy.
ICSI: .....Intracytoplasmic sperm injection.
IGF-2: .....Insulin growth factor 2.
IGF-BP3: .....Insulin growth factor binding protein 3.
IVF: .....Invitro fertilization.
IVF-ET: .....Invitro fertilization and embryo transfer.
LNG-IUD: .....Levonorgestrel intrauterine device.
LNG-IUS: .....Levonorgestrel intrauterine system.
LPF: .....Low power field.
MMPs: .....Matrix metaloproteinases.
MRgFUS: .....Magnetic resonance guided focused ultrasound.
MRI: .....Magnetic resonance imaging.
NETA: .....Norethinodrone acetate.
NLR: .....Negative likelihood ratio.
NPV: .....Negative predictive value.
PLR: .....Positive likelihood ratio.

List of Abbreviations (Cont...)

Abb.	Full term

PPV: .....Positive predictive value.
PROM: .....Premature rupture of membrane.
re TIAR: .....Repeated tissue injury and repair.
SE: .....Strain elastosonography.
SGA: .....Small for gestational age.
SPRMs: .....Selective progesterone receptors modulators.
SR: .....Strain ratio.
SWE: .....Shear wave elastography.
T1-WI: .....T1 weighted imaging.
T2-WI: .....T2 weighted imaging.
TAS: .....Trans abdominal sonography.
TAUS: .....Trans abdominal ultrasound.
TE: .....Transmission electron.
TIAR: .....Tissue injury and repair.
TXA2: .....Thromboxane A2
UAE: .....Uterine artery embolization.
VCI: .....Volume contrast imaging.
VPA: .....Valproic acid.