

Role of Two Dimensional Trans-abdominal Ultrasound and Doppler Ultrasound in the diagnosis and differentiation of gut wall lesions

Thesis Submitted In Partial Fulfilment for

MD Degree in infectious diseases and endemic hepatogastroenterology

By

Rasha Mohamed Tawfik El Etreby

M.B., B.Ch.

M.Sc Endemic Medicine

Supervised by:

Professor. Nabeel Moustafa El-Kady

Professor of Endemic Medicine
Faculty of Medicine – Cairo University

Professor. Zakaria Abd Al Lateef Salama

Professor of Endemic Medicine
Faculty of Medicine – Cairo University

Ass. Professor. Maha Sayed Hasab Allah

Assistant Professor of Endemic Medicine
Faculty of Medicine – Cairo University

Faculty of Medicine.
Cairo University
2012

ABSTRACT

BACKGROUND:

Compared with computerized tomography, magnetic resonance imaging, and capsule endoscopy, ultrasonography (US) of the bowel is cheap, portable, flexible and user- and patient-friendly, with image data of high resolution; also Doppler imaging has been described as helpful in a variety of gastrointestinal disorders.

OBJECTIVE:

The study aimed at assessment of the ability of trans-abdominal US and Duplex Doppler US to localize and suggest the nature of different causes of gut wall lesions.

METHODS:

A total of 60 patients with symptoms suggestive of bowel lesions were subjected to trans-abdominal bowel wall US with emphasis on bowel wall thickening; its site, maximum diameter, length of the affection and wall stratification. Also Doppler examination was done to determine volume of blood flow, resistive and pulsatility indices of superior mesenteric artery and portal vein, together with resistive index of mural blood flow in the affected segment. Results were compared to histopathology, obtained through endoscopy, ultrasound or sometimes laparotomy.

RESULTS:

US accuracy in detection of site of lesions was 100%, and in suggestion of the nature of lesions was 86.67%. Differences between malignant and inflammatory lesions as regards bowel wall thickness, wall stratification, and length of affection were statistically highly significant. Resistive and pulsatility indices of superior mesenteric artery (SMA) of control group compared to study group were the only significant Doppler values.

CONCLUSION:

US is a fast, efficient, safe and cheap way of examining various bowel lesions.

KEY WORDS: Ultrasound, Doppler, Bowel lesions

ACKNOWLEDGEMENT

THANKS TO

"GOD"

THE KINDEST

&

THE MOST MERCIFUL.

It was an honor to work under the supervision of eminent professors:

PROF. DR. NABIL EL-KADY

PROF. DR. ZAKARIA SALAMA

ASSISTANT PROF. MAHA HASAB ALLAH

Who lent me their whole hearted support and immense facilities as is their usual with their candidates. To them, I owe more than I can record.

I pray to "God" to surround them with his blessing, protection, and to give them by his mercy the best.

*I am greatly honored to express my deep gratitude and faithfulness to *PROF. DR. NABIL EL-KADY*, Professor of Endemic Medicine, Cairo University; for his choice of me for this work, giving me the idea of the work, for his sincere guidance and support. He gave me much of his experience, meticulous advice and support that can't be expressed in words.*

*I am extremely grateful to the eminent *PROF. DR. ZAKARIA SALAMA*, Professor of Endemic Medicine, Cairo University, for his choice of me for this work, for his great help, faithful advices, kind support from the start and all through the work until its completion, and immense facilities he offered. To him therefore, I express my deep sense of gratitude.*

*Also, I would like to express my sincere thanks and deep gratitude to *DR. MAHA HASAB ALLAH*, Assistant Professor of*

Endemic Medicine, Cairo University, for her great effort during all stages of this work. She had generously devoted much of her valuable time and effort to present this work in an ideal form.

Many thanks to her.

Many thanks to all my staff and colleagues that without them this work could not been completed.

And for those who filled this work with life, the patients, many thanks for the co-operation they had shown. I hope that with this and with other studies we can alleviate their sufferings.

Last but not least, allow me to send my deepest gratitude, my great appreciation & sincere thanks to my great family

To the spirit of my father, who I miss very much and I wish he had been with me now, who supported me by all means throughout my life, who gave me a lot of love, experience, care, confidence and advice.

To my mother, sister and brother, who gave me everything since I was born.

To my husband, who gave me a lot of his time to help, support and advise throughout all the work

To my daughter, who gave a new meaning to my life. To her, I hope that one day she will be better than me

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