شبكة المعلومات الجامعية

بسم اللّه الرحمن الرحيم

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم باللّه 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

شبكة المعلومات الجامعية

بعض الوثائق الأصلية تالفة

شبكة المعلومات الجامعية

بالرسالة صفحات
لم ترد بالأصل

Transient Hepatic Echogenicity Difference on Contrast Enhanced Ultrasonography

Essay

Submitted for Partial Fulfillment of Master Degree

In Radio-Diagnosis

Presented by

Shimaa Wefky Elsaba

M.B.B, CH
Cairo University

Supervised by

Dr. Eshrak Emam Hassanein

Assistant Professor of Radio –Diagnosis
Faculty of Medicine
Ain Shams University

Dr. Lobna Abd Elmoneim Habeb

Lecturer of Radio -Diagnosis
Faculty of Medicine
Ain shams University

Faculty of Medicine
Ain Shams University

2009

I cannot give a word to fulfill my deepest love and thanks to ALLAH for lighting me the way not only throughout this piece of work but also throughout my whole life and for all the countless gifts I have been offered .Of these gifts my mother who was assigned to give me a precious hand so as to be able to fulfill this essay.

Acknowledgment

I wish to acknowledge with sincere appreciation and gratitude Prof. Dr . Eshrak Emam Hassanein professor of Radiodiagnosis Faculty of Medicine Ain Shams university. The few words written here can never express the feelings of gratitude and kind regards I have for her supervision .I would like to thank her for spending much of her precious time in fulfillment of this work .Without her meticulous guidance ,unlimited support and valuable advice ,this work would never have been completed .

I will remain grateful to Dr. Lobna Abd Elmoneim Habeb lecturer of Radio-diagnosis Faculty of Medicine Ain Shams University for her continuous encouragement ,guidance and close follow up of this work and for the time and effort she gave throughout this work .I am definitely grateful to her more than I can express.

Shimaa Elsaba

CONTENT

LIST OF TABLES AND FIGURES

Table of abbreviations

AFP	Alpha Foto Protein
C T	Computerized tomography
CEUS	Contrast Enhanced ultrasonography
EHE	Epithelial Hemangio Endothelioma
FNH	Focal Nodular Hyperplasia
FLL	Focal Liver Lesion
HCC	Hepatocellular Carcinoma
MI	Mechanical index
MRI	Magnetic Resonance Imaging
THAD	Transient Hepatic Attenuation Difference
THED	Transient Hepatic Echogenicity Difference
THID	Transient Hepatic Intensity Difference
UCA	Ultrasound Contrast Agent
US	Ultrasonography

Introduction

The liver is the organ most frequently involved by metastasis from other sites in addition to many benign lesions such as hemangiomas and focal nodular hyperplasia. Several imaging modalities and diagnostic protocols have been used in attempts to optimize detection of focal liver lesions ***(Liovet et al, 2003).***

The liver has a dual blood supply (70% portal vein,30%hepatic artery).The arterial and portal venous supplies to the liver are not independent systems. There are several communications between the vessels ,including transsinusoidal, transvasal &transplexal routes ***(Kim et al ,1998).***

When vascular compromise occurs, there are often changes in the volume of blood flow in individual vessels and even in the direction of blood flow .There is compensatory relationship between the two arterial and portal in flow i.e. arterial flow increases when

portal flow decreases .These perfusion disorders can be detected with helical C T and are generally seen as an area of high attenuation on hepatic arterial phase images that returns to normal on portal venous phase images ; and are hence known as Transient hepatic attenuation differences ***(Quiroga et al, 2001).***

Recently contrast enhanced ultrasonography has been used to report and analyze transient hepatic echogenicity difference due to perfusion changes which are equivalent to transient hepatic attenuation difference seen on CT ***(Catalano et al, 2007).***

Knowledge of this Transient Hepatic Echogenicity Difference phenomenon may be relevant for avoiding incorrect image interpretation or incorrect tumor size measurement ***(Catalano et al,2007).***

Aim of work

To show the role of contrast enhanced ultrasonography in different hepatic focal lesions and to Illustrate Transient Hepatic Echogenicity Difference On Contrast Enhanced Ultrasonography.