SHOCKWAVE LITHOTRIPSY OF GALL BLADDER STONES

THESIS SUBMITTED BY

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For partial fulfilment of Master Degree

of Radiodiagnosis

UNDER SUPERVISION OF

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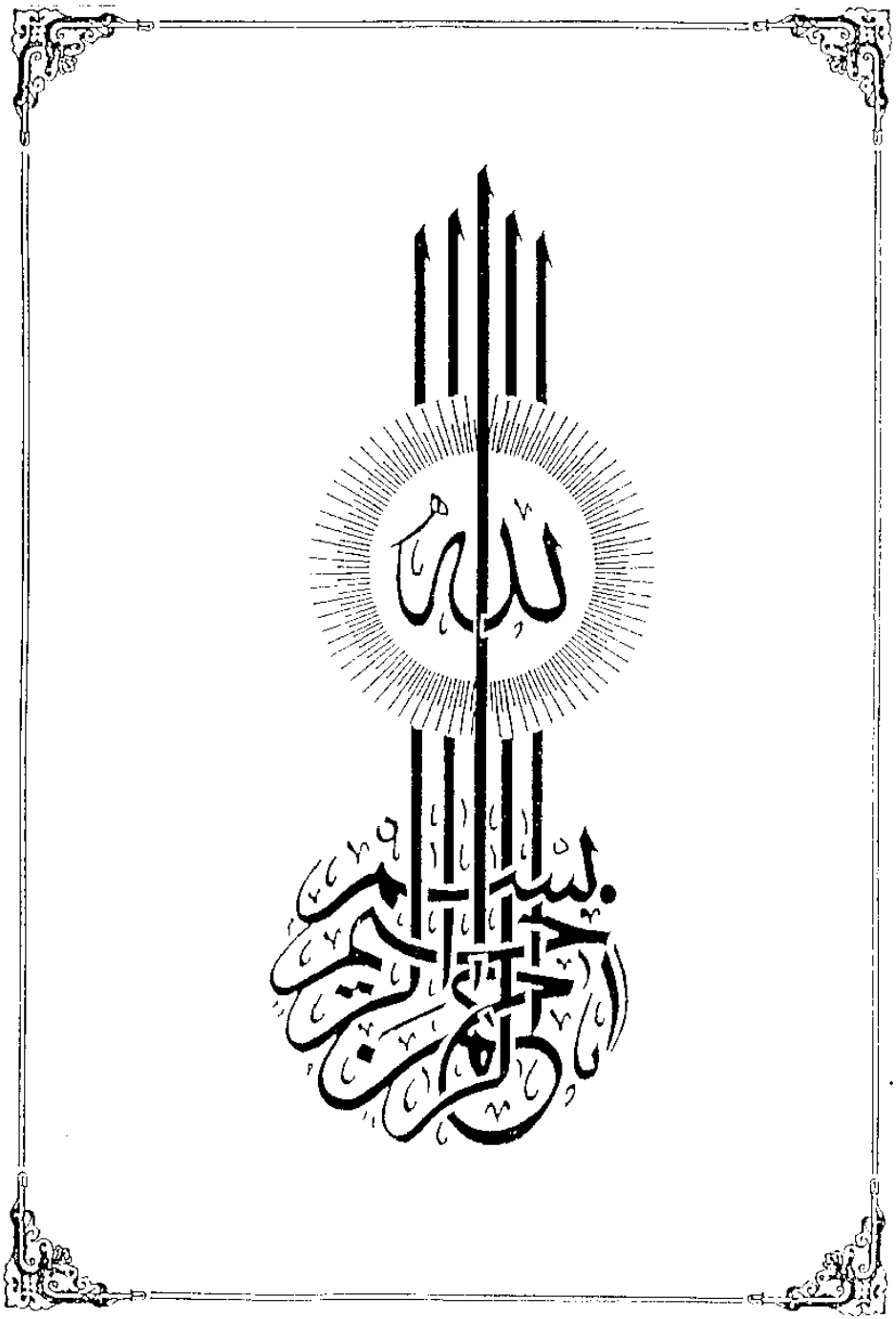
1992



C O N T E N T S

ACKNOWLEDGEMENT

I AM GREATLY HONOURED THAT I WORKED UNDER THE SUPERVISION OF DR. HEBA MOHAMED KHALIL EL DEEB , ASS. PROFESSOR OF RADIODIAGNOSIS , AIN SHAMS UNIVERSITY FACULTY OF MEDICINE, FOR HER STIMULATING ADVICES , GUIDANCE AND SINCERE HELP THAT MADE THE ACCOMPLISHMENT OF THIS WORK POSSIBLE.

I WISH ALSO TO EXPRESS MY THANKS TO DR. IKRAM HAMED MAHMOUD , HEAD OF RADIOLOGY DEPARTMENT , MADINA NATIONAL HOSPITAL, FOR HIS KIND HELP.

MY GRATITUDES ARE ALSO EXTENDED TO ALL THE PROFESSORS AND STAFF MEMBER OF THE DEPARTMENT OF RADIODIAGNOSIS AIN SHAMS UNIVERSITY .

CHAPTER I

INTRODUCTION AND HISTORY OF LITHOTRIPSY

Recently , extracorporeal shockwave lithotripsy has been introduced as a non-invasive treatment of gallstone disease .

Shockwave treatment permitted stone disintegration and spontaneous passage of fragments .

This non-invasive procedure uses shockwave to shatter gallstones , reducing them to small particles that can pass from gallbladder spontaneously or can be dissolved by an oral bile acid (Ursodiol)

This procedure requires no incision , no long hospitalization , no extended recureperative period.

Extracorporeal shockwave lithotripsy is conducted without sedation or anaesthesia and is well-tolerated by all patients.

Minimal and acceptable side effects may be encountered.

Initial experiences showed that lithotripsy is safe , effective and well-tolerated .

Our aim in this study is to evaluate the role of extracorporeal shockwave lithotripsy in the treatment of the gallstones in selected number of patients

The technique of lithotripsy was first developed in mining engineering and was later adapted to the treatment of the renal calculi in Russia , in 1950. (Barkun, A.N.G. ,1990).

The fundamental principles of extracorporeal shock-waves lithotripsy (E.S.W.L.) were developed from investigations by the Dornier corporation of the Federal Republic of Germany into the causes of surface pitting often seen on the outer shells of its spacecraft and supersonic airplanes .Dornier discovered that when these aircraft colloided with raindrops at high speed , shock-waves were produced that created stresses inside the material structures of the aircraft . (Dornier , 1986)

In 1966, further studies demonstrated shock-waves could exert a destructive effect on brittle solids get pass harmelessly through organic tissues . (Dornier,1986)

In 1979, was the initial in vitro experiments for the disintegration of the stones by shock-waves .(Chaussy C. et al 1980) .

Electrohydraulic shockwaves were first used success-