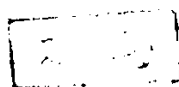


# STAPLERS IN SURGERY

*Thesis*

Submitted For Partial Fulfillment of Master Degree  
In **General Surgery**

By



W/W

**Mohamed Fatouh Mohamed Awad**

G 17 . 059

M.B.B.Ch

M. F

Under Supervision Of

Signature of Prof. Dr. Alaa Fayez Hamza

**Prof. Dr. Alaa Fayez Hamza**

*Ass. Prof. of General and Pediatric Surgery*

**Prof. Dr. Ahmed Abdel-Aziz Abou Zeid**

*Ass. Prof. of General Surgery*

**Dr. Osama Abdel Elah El-Naggar**

*Lecturer in General and Pediatric Surgery*

Faculty of Medicine  
Ain Shams University  
1997







بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وقل رب زدني علما

صدق الله العظيم (طه ١١٤)



**To...**

*My Mother, Soul Of My Father,  
My Sisters And All The People Who Loved  
And Helped Me Throughout My Life*



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Prof. Dr. of General Surgery

Faculty of Medicine, Ain Shams University

**Dr. Osama Abdel Elah El-Naggar**

Lecturer of Pediatric Surgery

Faculty of Medicine, Ain Shams University

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# **INTRODUCTION AND AIM OF THE WORK**

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## INTRODUCTION

Staplers are modern devices designed to facilitate and improve the outcome of bowel anastomosis as a better alternative to ordinary manual suturing. They are first used by Hultle and Fisher in 1908 when they designed it to work in two stages the first one allowing for gentle compression and immobilization of tissues and the second involving placement of staples (*Ravitch and Steichen, 1984*).

Although authors of old soviet Union added some important modifications to the instrument by using lighter and better designed staplers with creation of cartridge concept (manual loading) in addition to simultaneous staples placement for the linear staplers, these staplers were still heavy, difficult in application and time and effort consuming, these defects limited their usage and delayed their spread (*Friedrichs, 1934*).

The first generation of American made staplers appeared in late 1960s as a modification for Russian precursors by using finer materials, precision craftsmanship and mass production. In fact they created many important advances among them was placement of all the moving parts into the cartridge which transformed the instrument into a simple shell available for multiple uses depending on the cartridge ,Americans also developed the concept of disposable preloaded sterilized cartridges and reaffirmed the usage of fine staples and double staggered rows ,they created a new instruments as skin and facial staplers (*Knight and Griffen, 1980*).

**F**inally mechanical stapling instruments do not absolve the surgeon from respectation of the golden rules of operative techniques as clean sharp dissection, careful hemostasis, respect for tissue viability and blood supply, use of healthy disease free tissues in sutures and anastomosis placed without tension (*Steichen and Ravitch, 1984*).

## **AIM OF THE WORK**

Is to demonstrate indications, benefits and hazards of using modern stapling techniques in surgery during the period of the study.