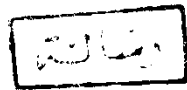


Injection treatment for haemorrhoids

Thesis

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Degree of **General Surgery**



Presented by

Dr. ESSAM MOHAMED RADI

M.B., B.Ch.

011-555
6-11

Supervised by

Prof. Dr. ABD EL-MEGIED. EL-SHENNAWY

*Prof. Of General Surgery
Ain Shams University*

Prof. Dr. AHMED. MOHAMED LOTFY

*Prof. Of General Surgery
Ain Shams University*

**Faculty of Medicine
Ain Shams University
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INTRODUCTION

Introduction and Aim of work

- Bleeding haemorrhoid is one of the most common problems that we face in general surgery. The causes of haemorrhoidal disease are unknown. Constipation and abnormal bowel habits are commonly blamed despite largely contrary evidence. (Keighley 1993)
- Although operative haemorrhoidectomy is the standard with which to compare other techniques. Too many new surgical and non-surgical approaches to the treatment of haemorrhoids have been considered as sclerotherapy, rubber band ligation, cryotherapy, anal dilation, infrared photocoagulation, bipolar diathermy electrocoagulation and laser.

Which one is most effective depends on the size, the degree of haemorrhoids and also on the experience of each proctologist.

Injection sclerotherapy was to be effective in most cases of bleeding haemorrhoid (Keighley 1993)

Sodium morrhuate is a new substance which is effective in treatment of injection sclerotherapy and to be equal in treatment of esophageal varices by injection and can be used in treatment of varicose vein (Goligher 1984).

Aim of the work :

Our aim is to review the literature concerning non surgical treatment for bleeding haemorrhoids stressing on injection therapy which is a simple way and safe procedure (Gorden, 1992). One of the substances commonly used is sodium morrhuate, which is not available in our country.

Ethanolamin oleate is available in Egypt and is commonly used in sclerotherapy for esophageal varices while sodium morrhuate is not easily obtained in our country. The later is widely used abroad for injection of haemorrhoids. Our aim is to study the effect of two drugs (namely: Ethanolamin oleate and Sodium morrhuate) and the effectiveness of each in injection of haemorrhoids.

ANATOMY OF THE ANAL CANAL

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The muscular anal canal forms a sphincter at the distal end of the gastrointestinal tract. The adult canal is about 4 cm long, posteriorly the canal is separated from the tip of the coccyx by fibrofatty and muscle tissue known as anococcygeal ligament. The ischiorectal fossa lies on either side of the anal canal. Anteriorly, the perineal body or central tendon of the perineum separates the canal from the lower end of the vagina or from the membranous urethra and the bulb (*Mc Gregor's 1986*).

The surgical anal canal is the terminal portion of the large bowel that passes through the levator ani muscles and opens at the anal verge. It differs from the anatomic anal canal that is measured from the dentate line to the anal verge. The inner muscular wall of the anal canal is the continuation of the circular smooth muscle layer of the rectum that has become thickened and is called the internal sphincter. It is innervated by the autonomic nervous system. This is surrounded by an outer, funnel-shaped tube of skeletal muscle with somatic innervation, arranged in three U-shaped loops. The top loop is the puborectalis, it is the deep portion of the external sphincter muscle that arises from the pubis and loops around the upper part of the anal canal with a downward inclination. The intermediate loop is the superficial external sphincter that surrounds the anal canal and is attached via the anococcygeal

Anatomy of the anal canal [4]

ligament to the coccyx. The base loop is the subcutaneous portion of the external sphincter muscle (*Schwartz 1989*). (*Fig. 1*).

The muscles of the anal canal can be regarded as forming a tube within a funnel. The sides of the upper part of the funnel are the levator ani muscles and the stem of the funnel is the external sphincter, which is continuous with the levator ani. The tube inside the stem of the funnel is the internal sphincter, which is a thickened continuation of the inner circular layer of the rectal muscle. Internally lies the submucosa and mucous membrane (*Last's anatomy 1994*).

Approximately 2 cm cranial to the anal verge is the line of anal valves. This landmark is the pectinate or dentate line and is located at the junction of the middle and distal thirds of the anal canal. Above each valve is a pit or anal crypt. Connected to the anal crypts are a variable number of glands (four to ten) that traverse the submucosa to terminate in the submucosal portion of internal anal sphincter (IAS), or the inter-sphincteric plane. If obstructed, these glands are the source of perianal abscesses and fistulae. Cranial to the anal valves but still in the anal canal, the mucosa is pleated into 12 to 14 columns (columns of Morgagni). The mucosa above the