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**MANAGEMENT OF OESOPHAGEAL VARICES
BY ENDOSCOPIC LIGATION VERSUS
SCLEROTHERAPY
IN ACUTE AND ELECTIVE INTERFERENCE**

THESIS

Submitted in partial fulfillment for the
Master Degree in General Medicine



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LIST OF ABBREVIATIONS

EIS	Endoscopic Injection Sclerotherapy .
EVL	Endoscopic Variceal Ligation .
IST	Injection Sclerotherapy
OV	Oesophageal Varices .
RCS	Red Colour Signs.
TIPS	Transjugular Intrahepatic Portosystemic Shunting .

INTRODUCTION AND AIM OF WORK



INTRODUCTION AND AIM OF THE WORK

Oesophageal sclerotherapy was the treatment of choice for bleeding oesophageal varices in the past decade . It is effective for treating acute variceal bleeding , as well as eradicating oesophageal varices for secondary prevention of bleeding . However in more than 20% of patients , sclerotherapy involves complications , some of which are serious. The high complication rate suggested the development of a new method that should be at least as effective and as easy to perform as sclerotherapy , but with fewer complications and side effects . Endoscopic variceal ligation was developed at the University of Colorado and described in 1986 . It is reported to control active variceal bleeding in about 90% of patients and to eradicate varices in about 80% of surviving patients, complications are rare (*Arnon - R. et al. , 1993*) .

So , injection sclerotherapy is of proven benefit in the management of active variceal haemorrhage and in the long term prevention of recurrent bleeding . Nevertheless , the use of endoscopic sclerotherapy is associated with a rebleeding rate of up to 50% in many trials , sclerotherapy is also associated with a substantial complication rate , the new alternative method is the

technique of endoscopic variceal banding ligation which was first described by *Stiegmann and Colleagues* and was developed with the aim of reducing this complication rate . Initial studies showed the efficacy of this method (*Roger Williams , A.E.S. Gimson , 1993*).

The Aim of this study :

Is to compare between injection sclerotherapy and rubber band ligation of oesophageal varices as regard the complications , control of bleeding , and eradication of varices .



REVIEW OF LITERATURE

**Anatomical
view of portal
tree**



Anatomical view

The main veins which are responsible for the formation of the portal system are : the portal vein , the splenic vein , the superior and inferior mesenteric veins (*Sherlock , 1993*) .

The portal system of veins which drains blood from the abdominal part of the alimentary tract " with exception of the lower part of the anal canal " and from the spleen , pancreas and gall bladder , from these viscera , the blood is conveyed to the liver by the portal vein (*Williams and Warwick , 1975*) .

Portal vein :

It begins at the level of second lumbar vertebra posterior to the head of pancreas " at the union of the splenic vein and superior mesenteric veins (*Rappaport , 1987*) .

Then ascends behind the bile duct and the hepatic artery in the hepato-duodenal ligament where it receives a variable number of small veins before entering the portal fissure (*Rappaport , 1987*) .

Portal vein is a valveless vein ranges from 6 - 8 cm and its diameter is about 12 mm . It extends slightly to the right or to the

middle line (*Sherlock , 1993*).

Portal vein ends at the porta hepatis by dividing into two branches. One to each of the corresponding lobes of the liver .The right branch is thick ,short and usually joined by the cystic vein before its entrance into the liver .The left branch is longer and smaller and gives branches of the caudate and quadrate lobes and is also connected to fibrous cord " the ligamentum teres " which is a remnant of the obliterated left umbilical vein which may recanalize in portal hypertension providing porto-systemic communication from the left portal vein to the superficial epigastric veins and it is also connected to the I.V.C. by another fibrous cord " the ligamentum venosum " which is a vestigie of the obliterated ductus venosus (*Kane and Katze , 1982*).

The portal vein derives from the omphalomesenteric vein which brings blood from the yolk sac and the intestine to the liver. The omphalic portion of the vein regress with the disappearance of the yolk sac ,with the growth of the intestine , the mesenteric portion persists and become the tributaries of the portal vein which include the splenic vein ,the superior mesenteric vein , the cystic vein , the right gastric vein , the paraumbilical vein and the left gastric (coronary) vein . The later is the most troublesome tributaries of the portal vein which runs upwards along the lesser curvature of

the stomach where it receives some oesophageal veins which with progressing cirrhosis of the liver, it enlarges to form varices that may rupture to produce fatal haemorrhage (*Rappaport, 1987*).

The splenic vein :

It begins by 5 - 6 tributaries arising from the spleen which then joined by the short gastric vessels to form a single vessel. It then descends to the right across the posterior abdominal wall where it receives the inferior mesenteric vein at right angle to form the portal vein (*William and Warwick, 1975*).

It is 0.45 cm in diameter and it receives also the left gastro-epiploic vein, pancreatic tributaries and carrying blood from left colon and rectum (*Rappaport, 1987*).

Superior mesenteric vein :

It is very variable, having from 10 - 25 tributaries and collect blood from the small intestine, the caecum, the ascending and transverse parts of the colon. It usually begins in the right iliac fossa by the union of its numerous and ascends in the root of the mesentery until the neck of the pancreas to meet the splenic vein (*Gardner et al., 1975*). The diameter of the superior mesenteric veins is about 0.78 cm in diameter (*Rappaport, 1987*).

Inferior mesenteric vein :

It drains blood from the rectum , the sigmoid and descending part of the colon . Starting as the superior rectal vein in the rectum and continues upward and ends in the medial third of the splenic vein but may sometimes enter the junction of the splenic and superior mesenteric veins (*Rappaport, 1987*) .



Portal Hypertension
