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شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

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شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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قسم

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بالرسالة صفحات لم ترد بالأصل

MANAGEMENT OF LIVER INJURIES

An Essay Submitted for Partial Fulfillment
Of the Master Degree of
General Surgery

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CONTENTS

INTRODUCTION

Introduction

The liver is the most commonly injured organ following penetrating trauma and the second most commonly injured organ following blunt trauma to the abdomen *(Walt, 1978)*.

Despite advanced resuscitative and surgical techniques, the overall mortality from liver trauma approximates 12% and can be as high as 50% - 89% when multiple organs are injured *(Feliciano et al., 1986)*.

The early diagnosis of liver injuries is essential for satisfactory outcome. The evaluation of the patient with blunt trauma and penetrating trauma begins by history, physical examination and investigations which may include: ultrasonography, computerized tomography and diagnostic peritoneal lavage. Sufficient period of observation of the clinical findings as signs of acute haemorrhage and local peritoneal irritation before moving the patient to the theatre *(Carmona et al., 1982)*.

The management of hepatic trauma can be classified to non-operative and operative approach. Morbidity and mortality of hepatic trauma are affected by many factors for example, blunt trauma to the liver has a mortality rate of 20%, where as mortality from simple penetrating injury to the liver is only 1% *(Walt, 1986)*.

Other important variants are the type of agent causing the trauma, the severity of injury to the liver, associated injuries to other organs, the presence of shock and the volume of haemorrhage *(Walt, 1986)*.

The aim of this work is to review the most recent advances and international trends in the field of hepatic trauma as regards the incidence, mechanism of injury, diagnosis and management of the case whether conservative or surgical.

SURGICAL ANATOMY OF THE LIVER

Chapter 1

Surgical anatomy of the liver

Introduction:

The liver, the largest gland in the body, weighs 1500 gm and receives 1500 cc of blood/minute. Its form has nothing to do with its function: the large wedge-shaped mass is merely a cast of the cavity into which it grows. It has two surfaces; diaphragmatic and visceral. The diaphragmatic surface is boldly convex, moulded to the under surface of the diaphragm, but is subdivided into anterior, superior, posterior and right surfaces which merge into one another without any clear demarcations, except where the sharp inferior border is formed. The visceral surface (inferior) is rather flat and slopes downwards, forwards and to the right from the posterior surface, but again there is no clear dividing line *(Last, 1990)*.

Embryology:

The liver, gall bladder and bile ducts arise as a ventral bud (hepatic diverticulum) from the most caudal part of the foregut.

The hepatic diverticulum extends into the septum transversum and expands the ventral mesentry.

The hepatic diverticulum divides into:

1) Large cranial part which gives rise to interlacing cords of liver cells and the intero-epithelial lining of the intrahepatic portion of the biliary apparatus. The liver cells anastomose around pre-existing endothelium-lined spaces which become the hepatic sinusoids. The fibrous, heamopoietic and Kupffer cells are derived from the mesenchyme of the septum transversum.

2) A small caudal part which expands to form the gall bladder; its stalk becomes the cystic duct. Initially, the extrahepatic biliary apparatus is occluded with endodermal cells, but it is later recanalized. The stalk