

ACQUIRED STRICTURE OF BILE DUCT
EVALUATION OF ITS CAUSES
DIAGNOSIS AND TREATMENT

Thesis

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By

Khaled Abdallah El Fiky
MB, BCh (1983) MSc (Surgery) 1987



Supervised By

Prof. Dr. Abdallah El Fiky
Prof. of General Surgery
Faculty of Medicine
Ain Shams University



617.556
K.A

Prof. Dr. Sami El Bablawy
Chairman of the Radiology Dept.
Faculty of Medicine
Ain Shams University

31245

Prof. Dr. Abd El Rahman El Ziadi
Prof. of Tropical Medicine
Faculty of Medicine
Ain Shams University

1990

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"أشرف ما خلق الله من خلقه من تحتها الأنبياء"

صلى الله العظيم

إلى أستاذي الذي تعلمت من يده
إلى عزيزي الذي أعيش على ذكراه
إلى صديق الذي لم أصدق إلا صفاه
إلى حبيب الذي لم أحب سواه
إلى والدي الذي ما قبلت إلا رضاه

و أستطيع أن أمدى يديك شيئا أنت صاحبه ولكنني بما بيننا أحاديث على السبيل
في الطريق الذي رسمته بعينك وحسنك وإيمانك وإلى بابي أعيش على أمل اللقاء
سأدوما بشاء الله رب العالمين



DEDICATION

I would not be able to dedicate something which is not mine but I would like to clarify that the real owner of this thesis had left early before attending the presentation of his work. The real owner is the **Great Prof.,**

Dear Friend,

Sincere Brother,

Faithful Father:

Prof. Dr. Abdallah El-Fiky

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Introduction

INTRODUCTION

Biliary surgery provides a fair proportion of the work of every general surgeon. Over the last twenty years there was a tremendous advance in the management of patients with biliary tract stricture. Diagnosis has been facilitated by such techniques as percutaneous cholangiography, ultrasound, and E.R.C.P. Medical management has been improved by better choice of antibiotics and by cytotoxic drugs. Surgical techniques have advanced, and new procedures such as the mucosal graft operation, and duct by pass procedures have evolved. Post-operative stricture may be due to difficult cholecystectomy but inexperience or overconfidence of an experienced surgeon may be the real cause of this catastrophe. Strictured bile duct due to malignant neoplasia should be investigated meticulously before planning the surgical procedure. This would not be achieved except after visualising the surrounding strictures by more than one of imaging techniques.

Reading this work may make the Junior surgeons aware of the existence of the stricture bile duct and to anticipate its presence and how to prevent its occurrence in many situations.

We would like to mention that the management of patients with biliary tract stricture is always a joint under taken between physcicans, radiologists, clinical pathologists and of course surgeons.

Aim of the Work

AIM OF THE WORK

The aim of this work is to study the various causes of stricture of the bile ducts. The various methods of diagnosis is going to be applied and the different lines of treatment are going to be done for the appropriate cases. The results are going to be analysed.

Anatomical Consideration

ANATOMICAL CONSIDERATIONS

The Biliary Apparatus:

I) Gall Bladder:

The gall bladder is a pear shaped sac about 7cm long with a normal capacity of about 30-50ml. The main part is the body, which adheres to the gall bladder fossa or bed on the visceral surface of the liver, between quadrate and anatomical right lobes.

Its lowest extremity forms an expanded end, the fundus, which may or may not project below the inferior border of the liver in the region of the right ninth costal cartilage where the outer margin of the rectus sheath meets the costal margin. At its upper end, the body narrows to form the neck, which in turn becomes continuous with the cystic duct. The organ is covered with peritoneum except for the surface that is in direct contact with the liver tissue of the gall bladder fossa.

The immediate relations of the gall bladder are:

In front: The liver and the anterior abdominal wall in the region of the right ninth costal cartilage.

Behind : The junction of the superior (first) and descending (second) part of the duodenum.

Below : The transverse colon.

The wall of the neck where it becomes the cystic duct may show a small diverticulum directed downwards and backwards, commonly called (Hartmann's pouch). It is now not known to be a feature of the normal gall bladder, and is always associated with some pathological conditions.

II) Hepatic Ducts:

The intrahepatic biliary ducts of the two left lobe segments (usually one from each segment but occasionally two) unite to form the left hepatic duct which emerges from liver substance at the left edge of the porta hepatis.

The ducts from the two right lobe segments usually unite in the same way to form the right hepatic duct.

The right and left hepatic ducts then join about 1 - 2 cm below the porta to form the common hepatic duct.

While the left hepatic duct is almost invariably a single vessel, on the right, the two segmental ducts, in about 25% of subjects, join with the left duct independently (Kune, 1970).

The common hepatic duct with a length of 2 - 4cm and an internal diameter of about 8mm lies in the right free margin of the lesser omentum, towards the right and in front on its left. The right branch of the hepatic artery commonly passes behind the common hepatic duct.

III) Cystic Duct:

The cystic duct is the continuation of the neck of the gall bladder. It is commonly about 4cm long, with an internal diameter of 2 - 3mm. It passes upwards and to the left to join the common hepatic duct about 3cm below the porta and 2.5cm above the duodenum, so forming the common bile duct. The cystic artery commonly runs behind the cystic duct and lies in the triangle of Calot bounded by the common hepatic and cystic ducts and the liver.

IV) Common Bile Duct:

The bile duct (formerly the common bile duct) is about 7 - 8cm long and 0.8cm wide. It is helpful to describe it as having three main parts each about 2.5cm long which might be named: supraduodenal, retroduodenal and paraduodenal & intraduodenal part.

A) Supraduodenal Part:

At its upper end, the duct lies above the duodenum in the right free border of the lesser omentum, with the portal vein behind it and the hepatic artery on its left side. The lesser omentum here forms the anterior boundary of the epiploic foramen.