Update in Management of Malignant Obstructive Jaundice

Essay
Submitted for partial fulfillment of
Master degree in general surgery

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2009

ACKNOWLEDGEMENT

First and foremost I am thankful to ALLAH the beneficent and the merciful.

I wish to express my deepest thanks and gratitude to

Prof. Dr. Gamal Saad Abass

Professor of general surgery, Faculty of medicine, Ain Shams University, for his help and sincere guidance. I am very grateful for this great help, advice and encouragement.

I am also extremely indebated to

Dr. Gamal Abd El Rahman El Mualid

Assistant professor of general surgery, Faculty of medicine, Ain Shams University, for his sincere support, motivation and encouragement throught this work.

I would like to egress my deepest thanks and gratitude to

Dr. Mahmoud Saad Farahat

Lecturer of general surgery, Faculty of medicine, Ain Shams University, who gave much of his time and spared no effort in guiding me throught this work. Thanks for constant support, supervision and encouragement.

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List of Abbreviations

ALK	ALKaline phosphatase
ALT	ALanine aminotransferase
AST	ASpartate aminoTransferase
CA	Cystic Artery
CBD	Common Bile Duct
CCK	CholeCystoKinin
CD	Cystic Duct
CA	Carbohydrate Antigen
CEA	Carcino Embryonic Antigen
CHD	Common Hepatic Duct
C-SEMS	Covered Self-Expandable Metal Stents
CT	Computed Tomography
EH	Extra-Hepatic
eP TFE/FEP	expanded Poly-Tetra-Fluoro-Ethylene / Fluorinated Ethylene Propylene
ERC	Endoscopic Retrograde Cholangiography
ERCP	Endoscopic Retrograde Cholangio-Pancreatography
EUS	Endoscopic UltraSonography
FDG	Fluoro-Deoxy-Glucose
FDGPET	Fluoro-Deoxy-Glucose Positron Emission Tomography
GB	Gall Bladder

GGT	Gamma Glutamyl Transferase
ICU	Intensive Care Unit
IDA	Imino-Di-Acetic acid
IDUS	Intra-Ductal UltraSonography
IH	Intra-Hepatic
IHGB	Intra-Hepatic Gall Bladder
IOC	Intra-Operative Cholangiography
IORT	Intra-Operative Radio-Therapy
IOUS	Intra-Operative UltraSonography
LHA	Left Hepatic Artery
LHD	Left Hepatic Duct
LUS	Laparoscopic UltraSonography
MRCP	Magnetic Resonance Cholangio-Pancreatography
MRI	Magnetic Resonance Imaging
SEMS	Self-Expandable Metal Stents
TNM	Tumour-Node-Metastasis
PET	Positron Emission Tomography
PTBD	Percutaneous Transhepatic Biliary Drainage
PTC	Percutaneous Transhepatic Cholangiography
PVE	Portal Vein Embolization
RHA	Right Hepatic Artery
RHD	Right Hepatic Duct
US	UltraSonography
5-FU	5-Fluoro-Uracil

INTRODUCTION

Introduction

Malignant biliary obstruction may be caused by various malignancies, most commonly pancreatic cancer, but also May result from other pancreatic tumors, ampullary cancer, cholangio-carcinoma, gall bladder cancer and malignant lymphadenopathy or metastatic lesions **(Jemal et al., 2003)**.

Pancreatic and periampullary tumors are the fifth most common cause of cancer-related death **(Greenlee, 2000).**

Jaundice unaccompanied by pain, and especially if the gall bladder is palpable, almost always indicate malignancy **(Majeed and Thomas, 2007).**

Diagnostic methods of biliary tree disease have changed considerably in the last few decades **(Wieserma et al., 1996).**

Diagnostic percutaneous Transhepatic cholangiography gradually developed into a technique, which allowed prolonged external catheter drainage of malignant strictures in the biliary system **(Yee and Ho, 1990).** Further development included percutaneous placement of multiple side-hole catheters into the duodenum, thereby establishing internal bile drainage **(Molnar and Stockum, 1974).** Early series showed a considerable

number of infectious complications, but further refinements produced better results **(Güther et al., 1988).**

Endoscopic ultrasonography can detect bile duct dilatation and the cause of obstruction in patient with malignant causes biliary tract obstruction **(Tiribelli et al., 1993).**

Currently, multidetector computed tomography with three-dimensional reconstruction is the preferred imaging modality to diagnose and stage peri ampullary and pancreatic cancer **(Horton, 2002)** the ability of magnetic resonance imaging to diagnose and stage peri ampullary and pancreatic Cancer has improved as a result of advaces in image resolution , acquisition speed , and MRI cholangio pancreatography **(Reinhold, 2002).**

There are three methods for palliation of malignant biliary obstruction: surgical bypass, percutaneous insertion of stents and endoscopic insertion of stents **(Cipolletta et al., 2007).**

Surgical palliation, achieved by the creation of hepatico-jejunostomy, has the advantage of allowing simultaneous palliation of biliary and gastric outlet obstruction and pain control in one sitting, the disadvantage of surgical palliation is the morbidity, especially in those with advanced disease **(House and Choti, 2005).**

Stents have emerged as a variable option to treat malignant biliary obstruction and are usually the first choice therapy in patient considered for palliative drainage **(Lars, 2005).**

Endoscopic stent insertion is the modality of choice. It provides effective palliation and may offer lower morbidity and mortality, shorter hospital stay and diminished over all cost compared with surgical or radiological approaches **(Cipolletta et al., 2007)**.

Occasionally encountered problem of stent occlusion due to the growth of malignant or benign hyperplastic tissue still remains, leading to recurrence of jaundice or cholangitis **(Brountzos et al., 2006).**

Despite surgical treatment with or without radiotherapy and chemotherapy, the overall 5 –year survival is approximately 4% and has barely improved over the last decades **(Kuhlmann, 2004).**

AIM OF THE WORK

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The aim of this essay is to highlight different modalities of diagnosis (Whether clinical or radiological) and treatment of malignant causes of obstructive jaundice.