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Case Report

Obstructive Jaundice of Malignant Origin

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REZUMAT

Icterul mecanic de etiologie malignă

Introducere: Tumorile maligne ce determină icter mecanic cel mai frecvent sunt: colangiocarcinoame extrahepatice (tumori Klatskin sau colangiocarcinoame distale extrahepatice), tumori cefalopancreatice și tumori periampulare.
Prezentare de caz: Un pacient de 71 de ani, s-a prezentat la camera de gardă pentru icter indolor, prurit, urină hipercromă și scădere ponderală. Diagnosticul clinic la internare a fost de icter mecanic, cu suspiciunea unei etiologii maligne. Analizele serologice (Bilirubina totală = 10,5 mg/dl; Bilirubina directă = 9,1 mg/dl) au confirmat icterul post-hepatic și examinarea prin rezonanță magnetică a căilor biliare a stabilit diagnosticul paraclinic de: tumoră periampulară. Markerul tumoral CA 19-9 a avut valori ridicate de 244,1 U/ml. Pacientul a putut beneficia de o duodenopancreatectomie tip Whipple.
Rezultate: Timpul operator a fost de 375 de minute , iar cantitatea de sânge pierdută intraoperator de 250 ml. Evoluția postoperatorie a fost simplă și fără incidente. Alimentația enterală a fost asigurată din prima zi postoperator prin sonda nasojejunală, tranzitul pentru gaze s-a reluat în ziua 3, iar cel pentru materii fecale în ziua 4. Drenajele au fost suprimate în zilele 8 și 9 postoperator, iar pacientul a fost externat în ziua 11. Rezultatul histopatologic a evidențiat adenocarcinom al ampulei lui Vater invaziv în submucoasă (pT2), bine diferențiat (G1), fără ganglioni invadați tumoral din cei 15 examinați (pN0), (excizat în totalitate) și pancreatită cronică.
Concluzii: Chirurgia curativă este singurul tratament ce poate vindeca pacientul și ce îi poate oferi o supraviețuire îndelungată. Acest lucru este aplicabil doar la 20% din pacienții cu acest tip de patologie, la cei cu icter mecanic determinat de tumori în stadii incipiente.

Cuvinte cheie: icter mecanic, ampulom vaterian, duodenopancreatectomie

ABSTRACT

Background: Malignant tumors that cause obstructive jaundice are most frequently: extrahepatic cholangiocarcinoma (Klatskin tumors or distal extrahepatic cholangiocarcinoma), tumors of the head of the pancreas and periampullary tumors.
Case presentation: A 71 year old male patient, presented to the emergency room with jaundice, no history of pain, pruritus, dark urine, and loss of weight. He was admitted with the clinical diagnosis of obstructive jaundice, most probably of malignant origin. He was admitted with the clinical diagnosis of obstructive jaundice, most probably of malignant origin. The lab tests (TB=10,5mg/dl; DB=9,1 mg/dl) confirmed the jaundice and the MRCP established the diagnosis of : PERIAMPULLARY TUMOR. The CA 19-9 tumoral marker had elevated levels of 244,1 U/ml. The patient benefited of a Whipple's procedure (duodenopancreatectomy).

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Results: The operation time was of 375 minutes with a blood loss of 250 ml. The postoperative course was simple and uneventfull. The enteral feeding started in the first day through the nasojejunal tube, the first flatus was in the 3rd day and he resumed normal transit in the 4th day , resumed oral feeding in day 4, the drains were extracted in the 8th and 9th day and he was released on the 11th day. The histopathology exam revealed an adenocarcinoma of the ampula of Vater invasive in the submucosa (pT2), well diferentiated (G1), with no involved lymphnodes out of the 15 examined (pN0), entirely extracted and chronic pancreatitis.
Conclusions: Curative surgery is the only treatment that can cure and give the patient a greater life expectancy, but this applies to only 20% of the patients diagnosed with obstructive jaundice caused by early stage tumors.

Key words: obstructive jaundice, ampula of Vater adenocarcinoma, pancreaticoduodenectomy

INTRODUCTION

Obstruction of the billiary tree caused by a malignant tumor of the head of the pancreas, of the extrahepatic bile ducts or of the ampula of Vater it seems to become more frequent in Romania. Our country places 10th in the incidence and 9th in mortality in Europe for pancreatic cancer in male patients[1]. Unfortunately most of the patients are not suited for a curative surgical treatment at the moment of the diagnosis.

CASE REPORT

Emergency room (ER)

A male patient of 71 years came to the ER of the Bucharest Clinical Emergency Hospital in january 2015 complaining of jaundice, pruritus, dark urine and loss of weight of 6 kg in about two months time. The clinical examination revealed the jaundice with no abdominal pain. From the patient history we saw that he had an open cholecystectomy in 2010, a lumbar laminectomy also in 2010 and suffers from high blood pressure.

Work-up

- The complete blood count, biochemy and coagulation tests revealed, leucocitosis of 10.300/mm^3, cholestasis with increased bilirubin levels (TB=10,5 mg/dl, DB=9,1 mg/dl) and increased GGT=1200 U/L and ALP=515 U/L, and hepatic cytolisis with increased transaminase levels (AST – 158 U/L; ALT – 172 U/L).
- The abdominal ultrasound showed moderate dilatation of the intrahepatic bile ducts and a CBD of 16 mm, with the pancreas beeing homogenous in its entire length.
- The ECG and the chest X-ray were in normal range.

Admission

The patient was admitted in the section I of the general surgery department for further investigations with the diagnostic of Obstructive Jaundice with a high suspicion of a Periampullary Tumor.

The abdominal imaging tests continued with an MRCP that showed:

- Liver with increased dimensions and moderate dilatation of the intrahepatic bile ducts in both lobes;
- CBD of 16 mm and decreases in diameter towards the papilla, where it can be seen a tumoral formation which protrudes into the lumen of the second duodenum;
- Hepatic lymphnodes of 18 mm;
- No lesions of the pancreas.

The CA 19-9 tumoral marker was increased, having a value of 244,1 U/ml (normal value >27 U/ml).

The upper endoscopy revealed a Los Angeles A esophagitis, a transhiatal hernia.

A medical consult was also obtained preoperatively which established the diagnostic of : Esential hypertension grade III with increased risk and recommended that the patient continues with the prescribed treatment.

Surgery

An informed consent for surgery and for anesthesia was obtained after talking to the patient about the risks and benefits of the operation and what implies this operation and the proper guidelines that he should follow after surgery.

The operation took place in the 5th day after admission and the surgical approach was through a xifosubombilical incision which he already had from the previous open cholecystectomy. After the initial adhesiolysis a Kocher maneuver was performed to asses the resectability of the tumor. We established that the tumor did not invade the pancreatic head or the superior mesenteric artery or vein. A hepatic lymphnode was sent to the histopathology exam, which revealed only inflamation. We decided to perform a pancreaticoduodenectomy (Whipple's procedure) with a termino-lateral duct to mucosa pancreatico-jejunal anastomosis, a termino-lateral hepatico-jejunal anastomosis with a continous running suture and a termino-lateral Hoffmeister-Finsterer type of gastro-jejunal anastomosis, after closing the gastric stump with a linear stapler. We inserted a nasojejunal tube in the aferent loop for decompresion and one in the

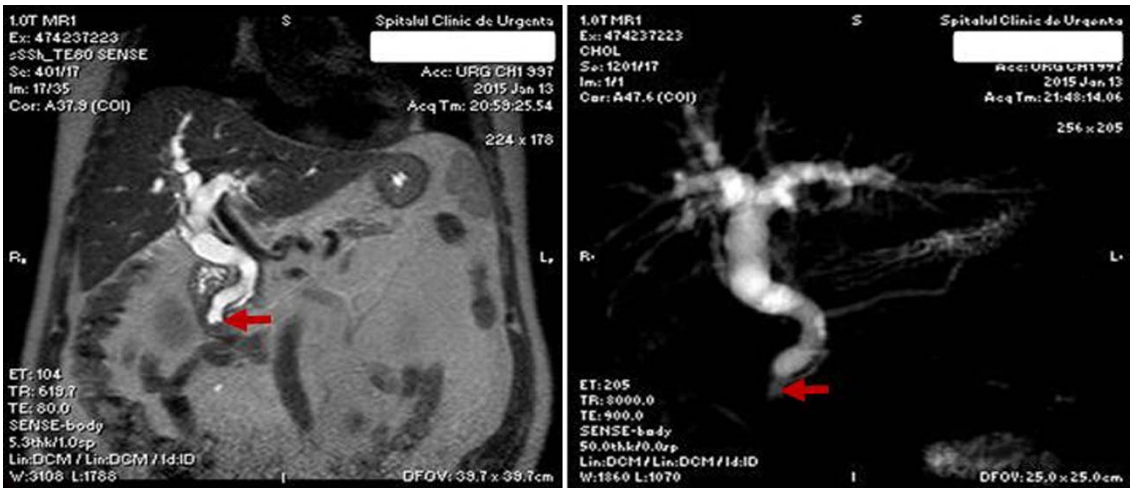

Figure 1. (A, B) – MRCP images

eferent loop for feeding. Two drains were placed in the Douglas pouch and one in the Morrison's pouch. Enteral feeding was started in the first day after surgery.

The surgery lasted 375 minutes with a blood loss of 250 ml which required 1 unit of PRBC.

RESULTS

The postoperative course was uneventful. Time to first flatus was 3 days and the patient resumed normal transit in the 4th day , oral feeding in day 4; the drains were extracted in the 8th (Douglas) and 9th (Morisson) day and the patient was discharged on the 11th day. The levels of the total and direct bilirubin started to decrease immediately after surgery along with the others that were increased at the time of admittance. When he was discharged in the 11th day, the lab tests showed the TB=2,7 mg/dl, an ALT of 56 U/L and a slight hipoalbuminemia of 3,43 g/dl. All the others tests were normal. The sutures were extracted at 14 days after surgery.

The final histopathology exam obtained at three weeks after surgery established the diagnostic of pT2N0 G1. It concluded that the tumor was an intestinal type of adenocarcinoma of the ampula of Vater, invasive in the duodenal submucosa, well diferentiated, with no regional lymphnode metastasis in the 15 lymphnodes examined, with a adenomatous component and with an R0 resection.

DISCUSSION

We consider our hospital a high volume center for pancreaticoduodenectomy with more than 25 such resections beeing performed per year by our experienced surgeons and from that comes a longer survival period [2].

Our patient belongs to the 20% group of patients that can benefit of a curative resection after the diagnosis of an obstructive jaundice caused by malignant tumors. The short and long term for this patient is good as he benefited of an R0 resection for a tumor staged as pT2N0M0 IB [3]. A study by Robert et al, suggested that pancreaticobilliary diferentiation, advanced stage and lymph node metastasis are prognostic factors for survival [4], which also confirms our statement that our patient has a good long-term outcome.

The long term survival rate for ampullary carcinoma does not differ from pancreatic, bile duct or duodenal carcinomas [5] and is of 52%, 32% and 24% at 5, 10 and 20 years [6].

Adjuvant therapy is still under discussion and some studies have shown it does not bring any improvement on overall survival rates [4, 7].

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