PPL24-001

BOWEL OBSTRUCTION MIMIKNG THE CHILAIDITI'S SIGN FOLLOWING HEPATECTOMY

Kuo-Shyang Jeng
Far East Memorial Hospital, Taiwan

Introduction: Demetrius Chilaiditi had been first described in 1910, is a radiographic finding that the bowels is interposed between the diaphragm and the liver. The identification of this entity is important because air under the diaphragm seen on plain radiograph usually represents pneumoperitoneum. We report an uncommon case of this radiographic finding.
Method: A 65-year-old man with a history of right hepatectomy for hepatocellular carcinoma 11 months ago, visited our Emergency Department with symptoms and signs of mechanical ileus. A picture like a Chilaiditi's sign was demonstrated on computed tomographic scan study.
Results: Following our active conservative treatment for adhesion ileus, he recovered smoothly and discharged 1 week later.
Conclusions: The common predisposing factors usually are anatomical alterations of the intestine such as elongation of the colon and a history of prior abdominal surgery. The clinical symptoms were due to the intestinal obstruction. This presentation may be attributed to the adhesions among the diaphragm and the small bowels because of an empty space following the due to previous hepatectomy. It is different from those cases published before.

PPL24-002

STAGING SYSTEMS FOR HEPATOCELLULAR CARCINOMA: A NOVEL PROPOSAL

Han Zhang[1], Xing Huang[2], Shu-Yang Dai[2], Yi-Nan Shen[1], Shou-Xin Yuan[1] and Tian Yang[1]
[1]*Eastern Hepatobiliary Surgery Hospital, China;*
[2]*Second Military Medical University, China*

Introduction: Clinical staging systems for cancer provide guidelines for patient assessments and treatments. A proper staging is essential for objective comparison between the outcomes of different treatments. While the prognosis of most solid tumors is generally dependent on tumor stage at presentation, prediction of prognosis in hepatocellular carcinoma (HCC) patients is somewhat more complicated due to various aspects affecting patient survival including cirrhosis and underlying liver function. Up to date, at least eight staging systems have been proposed for HCC, but the optimal staging system for HCC is still under intense debate.
Method: Each existing staging system, characterized by the patient population based on which it was constructed, may have different predictive power for HCC patient in different area of the world, roughly the East and the West. The lack of a consensus on HCC staging systems is mostly in part related to the heterogeneity in treatment modalities at diagnosis. Therefore, we hereby propose a novel staging system for HCC, named as the Eastern staging, based on the authors' previous study with a large cohort of Chinese patients undergoing surgical resection.
Results: Compared with the six existing staging systems, including CLIP, TNM, JIS, BCLC, CUPI and Okuda, the Eastern staging appears to have the best predictive ability for mortality at 1, 3, and 5 years.
Conclusions: We believe the Eastern staging to be a simple and practical system for prognostic factor evaluation, risk level determination, and prognosis assessment after surgical resection in patients with HCC.

PPL24-003

ADVANCES IN PROTON BEAM THERAPY FOR HEPATOCELLULAR CARCINOMA

Shu-Yang Dai[2], Xing Huang[2], Tian Yang[1] and Feng Shen[1]
[1]*Eastern Hepatobiliary Surgery Hospital, China;*
[2]*Second Military Medical University, China*

Introduction: Hepatocellular Carcinoma (HCC), one of the most common malignancies with high prevalence and mortality rate, usually results in poor prognosis and limited survival duration.
Method: Combined and comprehensive analysis on numbers and location of tumor, Child–Pugh grade, and Barcelona Clinic Liver Cancer system will lead to appropriate therapy and better prediction of prognosis. A majority of patients are complicated with cirrhosis, enlarged tumor, multiple lesions, vascular invasion and even the cancer embolus in portal vein. Considering this, with the growth knowledge about the radio tolerance of normal tissue and the advances in radiotherapy techniques, radiotherapy plays a more significant role in tumor degradation and cure.
Results: Thus, proton beam therapy (PTB) tend to be a novel available approach for the management of HCC among various radiotherapies, which, benefited from the effect of Bragge Peak from PTB, effectively decreased the toxicity of liver, barely do any harm to the uninvolved liver tissue or the surrounding structures and intensify the destruction in targeted malignant lesions. Furthermore, several previous results for treatment of hepatocellular carcinoma with PBT revealed excellent local control. In this review, we discuss the distinctive biophysical attributes in the treatment of HCC. We also review the available literature regarding clinical outcomes and toxicity of using PBT for HCC.

Conclusions: Current evidence provides a limited indication for PBT, which suggests that further study for the relationship between liver function and PBT is required for the sake of its indication and standardization.

PPL24-004

COMBINED RESECTION FOR HEPATOCELLULAR CARCINOMA AND CONCOMITANT EXTRAHEPATIC METASTASES: DOES IT BRING SURVIVAL BENEFIT?

Tian Yang, Han Zhang, Jun-Hua Lu and Meng-Chao Wu

Eastern Hepatobiliary Surgery Hospital, China

Introduction: Although recognized as poor prognostic factor, concomitant EHM is no more considered an absolute contraindication to surgery for patients with HCC. However, the survival benefit of combined resection of HCC and EHM has remained unclear.

Method: From 881 patients who underwent hepatectomy for HCC between 2001 and 2008, 51 (5.8%) also underwent concomitant resection of EHM. We investigated the pattern of resectable EHM, the surgical outcome, and the prognostic factors of these patients who underwent combined resection of HCC and EHM.

Results: Of the 51 patients, 20, 18, 5, 5, 2, 2, and 1 had metastatic lesions in lymph node, diaphragm, peritoneum and/or omentum, adrenal gland, lung, spleen, and ovary, respectively. Less than 5 cm of intrahepatic HCC seemed to have better outcomes when resected than those with not <5 cm (5-year OS: 33.3% vs 8.7%, $p = 0.070$, and 5-year DFS: 30.0% vs 2.4%, $p = 0.044$, respectively). In the group of patients with lymph node metastases, patients with adjuvant radiotherapy after surgery experienced better survival than those without(1-year OS: 80.0% vs 50.0%, $p = 0.008$, and 1-year DFS: 60.0% vs 20.0%, $p = 0.064$, respectively).

Conclusions: Combined resection of hepatectomy and EHM, which is the only potentially curative treatment of HCC patients with concomittant EHM, should be actively considered if the HCC and EHM are completely resectable. The role of adjuvant radiotherapy after complete resection of lymph node metastases and HCC is worthy of exploring in the future.

PPL24-005

RISK FACTORS OF SURGICAL SITE INFECTION AFTER HEPATECTOMIES: A PROSPECTIVE STUDY OF 7388 PATIENTS

Tian Yang, Ping-An Tu, Han Zhang, Jun-Hua Lu, Wan Yee Lau, Meng-Chao Wu, Jie-Wei Li and Feng Shen

Eastern Hepatobiliary Surgery Hospital, China

Introduction: Surgical site infection (SSI) is a common postoperative complication which is associated with increased morbidities, hospital stay, and overall cost. Determining the risk factors of SSI may provide information on improving outcome.

Method: A prospective study was conducted on 7388 consecutive patients who underwent hepatic resection between 2011 and 2012. The incidence and the risk factors of SSI were studied.

Results: The incidences of overall, incisional, and organ/space SSI were 9.4%, 5.5%, and 4.9%, respectively. Independent risk factors of overall SSI were obesity, diabetes mellitus, American Society of Anesthesiologists (ASA) score ≥2, cirrhosis, repeat hepatectomy, hepatoliathiasis, length of abdominal drainage ≥ 5 days, and intraoperative blood transfusion. Although independent risk factors of incisional SSI and organ/space SSI differed, hepatolithiasis, cirrhosis and intraoperative blood transfusion were common factors between them.

Conclusions: SSI was common in patients after hepatic resection. Patients with hepatolithiasis or cirrhosis should be taken more cautious care for. Early removal of abdominal drain, as well as minimizing intraoperative blood transfusion, may lower SSI rates.

PPL24-006

PROGNOSTIC ANALYSIS OF CURATIVE LIVER RESECTIONS FOR LIVER MALIGNANCIES COMBINED WITH BILE DUCT THROMBI

Hong Wang, Tian Yang, Jun-Hua Lu, Shou-Xin Yuan, Guang-Shun Yang and Meng-Chao Wu

Eastern Hepatobiliary Surgery Hospital, China

Introduction: To evaluate the safety and effect of curative liver resections for primary liver cancer (PLC) combined with bile duct thrombi (BDT), and to analyze prognostic risk factor affecting postoperative overall survival.

Method: From 2000 to 2008, a total of 48 patients with PLC and BDT who underwent curative hepatectomy were retrospectively analyzed.

Results: The overall morbidity and mortality were 31.3% and 0%, respectively. The 1-, 3- and 5-year recurrence-free and overall survival rates were 42.8%, 20.2% and 8.1%, and 56.3%, 31.3% and 20.2%, respectively. Survival analysis showed that more than 5 cm of maximum tumor size, portal vein tumor thrombosis, multiple or diffuse tumor, involving extrahepatic bile duct of BDT were independent risk factors effecting long-term overall survival after hepatectomy.

Conclusions: Curative hepatectomy appears to be a safe and effective treatment modality for patients with PLC and BDT. However, the overall prognosis is unsatisfactory, and the survival rates after operation is low. Involving extrahepatic bile duct of BDT is an independent risk factor for postoperative overall survival.