

percutaneous tube study in 12, by ERCP in 1, and by colonoscopy and contrast enema in 1 patient. Antecedent percutaneous catheter drains were present in 13 patients (92.9%). Fistulization was to the splenic flexure in 6, left colon in 5, and right colon in 3. Median time from the diagnosis of SAP to the discovery of PCF was 66.5 days. Treatments included percutaneous catheter drainage and antibiotics in all 14, endoscopically-placed transpapillary pancreatic duct stents in 9, and endoscopically-placed internal stents through the stomach in 2. Two patients (14.3%) underwent surgery. One patient died 4 months after resolution of a PCF and 1 month after last follow up. Conclusion: To our knowledge, this is the largest reported case series of PCF at a single institution in the English literature. PCF is an uncommon, often late complication of SAP. Not infrequently, it is found incidentally during radiographic studies. PCFs generally resolve with non-operative management including antibiotics, percutaneous drainage, and/or endoscopic internal stenting and heal without adverse consequence and rarely need surgical intervention.

T1294

Normal Liver Enzymes On Day #1 of Acute Pancreatitis Predict High Recurrence Rates of Pancreatitis After Cholecystectomy

Jan Trna, Santhi Swaroop Vege, Veronika Pribramska, Suresh T. Chari, Patrick S. Kamath, Michael L. Kendrick, Michael B. Farnell

Background/Aims: Biliary etiology for the acute pancreatitis(AP) is suspected when patients meet one or both of the following criteria: A) elevated liver enzymes(>3X increase of alanine aminotransferase(ALT) or aspartate aminotransferase(AST) on day 1 of AP, or B) presence of gallstones/sludge on abdominal ultrasound. To prevent recurrence of acute biliary pancreatitis, current recommendations are to perform cholecystectomy after the first episode of gallstone pancreatitis. However, cholecystectomy is also recommended for 2 or more attacks of idiopathic pancreatitis with the hope of preventing recurrence. In a population-based study we examined recurrence rates after cholecystectomy for AP. Methods: We retrospectively abstracted data of all Olmsted county residents who were diagnosed with AP at Mayo Clinic(>90% of all patients) between 1990 and 2005(n=1049). We classified patients with AP into groups I-IV based on the presence or absence of criteria A and B noted above: I: A + B, II: only A, III: only B and IV: neither A nor B. We identified 239 patients who underwent a cholecystectomy as treatment of AP and determined recurrence rates of AP in patient groups I-IV before and after excluding known etiologies for recurrence (retained or re-formed bile duct stones, elevated serum calcium/triglycerides, etc). Results: After a median follow-up after cholecystectomy of 99 months(range 8 -220), AP recurred in 41/239(17%) patients(Table). However, in 18/41(44%) patients with recurrence another etiology could be identified (CBD stones/s in 13, hypertriglyceridemia 1, others 4). Over 60% of recurrences in Group I could be attributed to retained common bile duct stones (n=6) or stenosis (n=3) at the site of previous sphincterotomy. Conclusions: Recurrence of AP is high after cholecystectomy if liver enzymes are normal at the time of initial presentation, especially in those without gallbladder stones/sludge. Recurrence rates are low in AP associated with elevated liver enzymes at the time of presentation; recurrences may be further decreased in this group by careful search for and removal of retained common bile duct stones.

	Criterion A: >3-fold elevation of ALT and/or AST on day #1 of AP	Criterion B: Abdominal ultrasound showing gallstones/sludge	Patients (n)	All post-cholecystectomy recurrences N (%)	Post-cholecystectomy recurrences of unknown cause N (%)
I	Present	Present	142	13 (9.2)	3 (2.1)
II	Present	Absent	17	1 (5.9)	1 (5.9)*
III	Absent	Present	57	13 (22.8)	8 (14.0)*
IV	Absent	Absent	23	14 (60.9)	11 (47.8)**

^ I vs II, p=1.0, I+II vs III, p=0.003, I+II vs IV p<0.0001, III vs IV p=0.003

T1295

Acute Idiopathic Pancreatitis Associated with Less Morbidity Than Episodes with Identifiable Etiology

Mark Saxena, Daniel Blachman, Anthony J. Nici, Adnan Muhammad, Capecomirin Pitchumoni

Introduction: Pancreatitis without an explained origin, idiopathic pancreatitis, is an entity whose short and long term outcomes remain uncertain. Published studies have not yet examined in-hospital outcomes for acute pancreatitis without an etiology. Methods: One hundred-ninety three acute pancreatitis patients admitted over two years had their charts retrospectively reviewed. Subjects whose episodes had an identified etiology were classified as "explained pancreatitis" and those without an identified etiology as "idiopathic pancreatitis". Subjects with one of five, severe chronic health conditions were excluded (e.g. NYHA stage IV heart failure). Twenty-eight individuals with idiopathic pancreatitis were matched by age, sex, and prior history of pancreatitis to twenty-eight individuals with explained causes. Bile crystal analysis for microlithiasis was not available. The primary endpoint was APACHE II score, and secondary outcomes were: number of organ systems with dysfunction, length of stay, presence of a pleural effusion, ICU admission, documented bacteremia, pancreatitis-related complications, and death. Associations were evaluated using the chi square test with contingency tables. Results: At hospital discharge, the idiopathic pancreatitis group had fewer subjects with APACHE II scores of 8 or more (5 vs. 10 p=0.049). Secondary endpoints revealed fewer: aggregate number of organ systems with dysfunction (2 vs. 8 p=0.029), subjects hospitalized for greater than or equal to 6 days (9 vs. 16 patients p=0.008), and individuals with pleural effusions (3 vs. 8 p=0.036) in the idiopathic pancreatitis group than the explained pancreatitis group. ICU admissions, total number of complications, and bacteremia were all less in the idiopathic group, but the differences did not reach statistical significance. No deaths were reported in either group. Conclusions: Fewer APACHE II

scores in the severe pancreatitis range and less morbidity outcomes were seen in idiopathic pancreatitis subjects than in those with a known etiology. Therefore, exclusion of typical inciting agents in acute pancreatitis may be associated with fewer adverse outcomes during a hospitalization References: 1. Ballinger A.B., Barnes E, Alstead EM, Fairclough P.D. Is intervention necessary after a first episode of acute idiopathic pancreatitis? Gut. 1996 Feb;38:293-5. 2. Forsmark, Chris E. and Bailie J. AGA Technical Review on Acute Pancreatitis. Gastroenterology. 2007;132:2022-2044. 3. Barreto S.G., Rodrigues J. Comparison of APACHE II and Imrie Scoring Systems in predicting the severity of Acute Pancreatitis. World J Emerg Surg. 2007;2:33-33.

T1296

Disparities in Emergency Department Wait Times for Acute Pancreatitis: Results from the National Hospital Ambulatory Medical Care Survey (NHAMCS), 1997-2006

Bechien Wu, Darwin Conwell, John Z. Ayanian, James Q. Hwang, Peter A. Banks

Early physician assessment and fluid resuscitation are important in the treatment of acute pancreatitis. Prolonged wait time in the emergency department may lead to a delay in resuscitation. OBJECTIVE: 1) To determine trends in wait times for acute pancreatitis (AP) visits to U.S. Emergency Departments (ED), 2) to identify whether racial/ethnic disparities exist in waiting times and 3) to characterize additional factors associated with delays in physician assessment. METHODS: We analyzed data from the NHAMCS from 1997-2006. Diagnosis was based on ICD-9-CM for acute pancreatitis (577.0). Racial/ethnic categories were defined as non-Hispanic White (NHW), non-Hispanic Black (NHB) and Hispanic White (HW). We stratified wait time by racial/ethnic group and by study year. We evaluated the association between race/ethnicity and frequency of delay relative to triage assignment. Statistical analysis: SAS version 9.1 (Carey, NC) PROC SURVEY procedures and PROC MIXED multi-level models were used to incorporate sample weights to account for complex NHAMCS survey design. Multivariate logistic regression was used to estimate the impact of age, gender, payment status, and geography on delays in clinical assessment. RESULTS: There were an estimated 1.6 million ED visits for AP in the NHAMCS survey during the study period. Overall wait times for AP increased during the study period (ANOVA, p<0.0001). HW waited longer on average compared to NHW (81.4 vs. 42.1 minutes, t-test, p=0.002). HW also had increased frequency of moderate-to-severe delay (18.6% compared to NHB (3.1%) and NHW (4.4%), [overall χ^2 , p<0.0001]. In multivariate logistic regression analysis, race/ethnicity and geography were independent predictors for delay in physician assessment. CONCLUSIONS: 1) There was an increase in wait time for patients with acute pancreatitis in Emergency Departments within the United States from 1997-2006. 2) Hispanic patients waited longer and had higher frequency of delays in clinical assessment. 3) In addition to race/ethnicity, geographic location was a predictor of delay in clinical assessment. Future efforts should be directed at reducing delays in physician assessment and addressing health care inequalities in acute pancreatitis.

T1297

Role of Percutaneous Catheter Drainage in the Management of Severe Acute Pancreatitis

Rakesh Kochhar, Jai D. Wig, Vikas Gupta, Kishore Gsb, Thakur D. Yadav

Background: Surgical intervention in severe acute pancreatitis (SAP) is associated with high morbidity and mortality rates. This study focuses on evaluating the efficacy of non-operative approach especially percutaneous catheter drainage (PCD) as a strategy in the management of SAP. Methods: 50 patients with SAP were managed over an 18 month period at a tertiary care centre in India. CECT was used for confirmation of diagnosis and severity scoring. SAP was defined as per Atlanta criteria. All the patients were managed in an intensive care unit with prophylactic antibiotics, nutritional support and supportive care. PCD was done under ultrasound/CT control using indwelling catheters for infected fluid collection(s) in and around pancreas. Those not responding to conservative management and PCD, and those with infected necrosis were subjected to necrosectomy and closed lesser sac lavage. Outcome measures studied were hospital stay, morbidity and mortality. Results: The 50 patients (27 males) were aged from 17-70 years; 38% had alcohol and 46% had gallstones as the etiology of SAP. 24 patients were put on PCD of whom 9 did not require surgery, another 12 were managed with only conservative treatment while 29 were operated upon, 14 as the first choice and 15 after temporarising PCD. Median ICU stay in patients managed non-operatively was 4 days (0-20) and in operated patients 22 days (0-54) p<0.05 and median hospital stay in non-operated patients was 27 days (15-43) and in operated patients 55 days (18-108) p<0.05. PCD significantly delayed surgical intervention when compared to those directly operated (24.66 + 16.36 versus 31.14 + 16.22 days) (p=0.04). Between patients responding to PCD(9) and those not responding to PCD(15), the latter had longer hospital stay (53.12 days vs 26.88 days) and higher mortality (40% vs 0%) p<0.05 for both. However between patients operated without PCD (14) and those after PCD(15) there was no difference in hospital stay and mortality. A total of 9 (18%) patients died, 1/12 in conservative group, 6/24 in PCD group (0/9; only PCD, 6/15 : PCD followed by surgery) and 3/14 in surgical group. Conclusion: PCD supplements conservative management in SAP and can avoid surgery in 37.5% patients. In patients requiring surgery after PCD it delays surgery. Non-surgical treatment option is effective and safe and needs to be considered as a therapeutic strategy in SAP.