
COGNITIVE IMPAIRMENT IN PATIENTS WITH CHRONIC HEPATITIS C

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Hepatitis C is the most common cause of chronic liver disease and it is significantly reduces quality of life and the role of cognitive deficits contributing to the morbidity of this disease has not been well characterized. **Aim of the work:** The aim of this study was to examine cognitive functions in patients with chronic hepatitis C and to investigate relationships among parameters of disease severity and performance on neuropsychological tests. Patients and methods: This study was conducted on 60 individuals, 45 of them were patients with chronic hepatitis C either attendants of the outpatient clinic or admitted to Tropical Medicine Department in Menoufiya University Hospital as group I and 15 healthy persons of matched age and sex (control group). The patients group was further subdivided into three subgroups GIa, GIb, and GIc according to the Child- Pugh classification each of the three subgroups includes 15 patients. Laboratory tests were done including CBC, renal function tests, liver function tests and blood sugar level, abdominal ultrasound also done and Mini Mental State Examination (MMSE) was done for all patients and control. According to Mini Mental State Examination(MMSE) Scores, There was reductions in the score in all hepatitis c virus subgroups in comparison to control group and affection was marked in groupIc more than other groups. Affection of the patients was marked in orientation, attention, calculation and recall memory. **Conclusion:** HCV infected patients showed impairment in cognitive functions in the form of affection of orientation, attention, calculation and recall memory and this impairment was progressive with the progress of disease severity.

COLON CANCER ASSOCIATED WITH OBESITY

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Obesity has been defined as excess body fat, and is the result of interactions of the environment with multiple genes (1). The modern high-fat, high-calorie diet combined with physical inactivity has resulted in an epidemic of obesity and overweight. Many parameters for documenting the incidence of obesity are the body mass index (BMI) which is expressed as body weight in kilograms divided by the height in meters squared { kg/m^2 } or waist to-hip ratio or waist circumference.

**COMPARISON OF END TO SIDE DUNKING AND DUCT TO MUCOSA
TECHNIQUES FOR PANCREATICOJUJENOSTOMY AFTER
PANCREATICOUDODENECTOMY**

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Leakage from pancreatic remnant accounts for most of the postoperative complications after PD . Pancreatic leakage occurs in 5% to 29% of patients undergoing PD and is a major cause of morbidity and mortality in these patients. **Objective:** This study aimed to compare the incidence of postoperative pancreatic anastomosis leakage after reconstruction of the pancreatic stump either by end to side dunking or duct to mucosa pancreaticojunenostomy (PJ) after. pancreaticoduodenectomy (PD). **Methods:** The perioperative data of 27 patients who underwent pancreaticoduodenectomy in King Fahad Specialist Hospital-Dammam between January 2007 to June 2010 were retrospectively collected and analyzed for pancreaticojunenostomy anastomosis which was performed using either end to side dunking anastomosis (ETSDA) (n = 12), or duct-to-mucosa anastomosis (DTMA). : Postoperative pancreatic leakage (POPL) occurred in 4 patients in the DTMA group, while no patient in the ETSDA group developed leakage (P= 0.07). The overall postoperative complications developed in 14 patients (51.9%) (ETSDA group 2/12 patients and DTMA group 12/15 patients), which was significant for DTMA group (0.002). One patient (3.7%) died in DTMA group. Mean \pm SD of postoperative hospital stay in the ETSDA group was 17.3 ± 8.7 days and in DTMA groups was 24.8 ± 22.5 days (P = 0.28). For patients without morbidities, the mean duration of postoperative hospital stay was 13.7 ± 6 days, and was 28.6 ± 22 days for patients with morbidity (P = 0.03). **Conclusion :** This study showed that pancreatic anastomosis leakage rate was close to be significant for DTMA but we could not find any evidence supporting one technique over the other regarding safe anastomosis after PD. The important aspects of successful pancreatic anastomosis are believed to be the surgical skills and experience.

COMPLICATION RATE DURING PROPOFOL-BASED DEEP SEDATION FOR COLONOSCOPY: A COMPARISON BETWEEN OXYGEN SUPPLEMENTATION WITH NASAL CANNULA AND FACE MASK

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This study is to evaluate and compare the complication rate during propofol-based deep sedation (PBDS) for colonoscopic procedure in patients with oxygen supplementation with nasal cannula and face mask in a hospital in Thailand. **Methods:** A total of 2,052 patients underwent colonoscopic procedures by using PBDS in Siriraj Hospital from September 2008 to August 2009. The primary outcome variable of the study was the serious complication rate during and immediately after procedure. The secondary outcome variables were minor complications during and immediately after procedure, and mortality rate. **Results:** After matching age, weight, body mass index, ASA physical status and the indications of procedure, there were 98 colonoscopic procedures in nasal cannula group and 104 procedures in face mask group. All sedation was given by residents or anesthetic nurses directly supervised by staff anesthesiologist in the endoscopy room. There were no significant differences in patients' characteristics, sedation time, indication, serious and minor complications, anesthetic personnel and mortality rate between the two groups. **Conclusion:** The complication rate during oxygen supplementation with nasal cannula and face mask for PBDS for colonoscopic procedure was comparable. Although, the complication rate in both groups was relatively high, all complications were easily treated, with no adverse sequelae.

CORRELATION BETWEEN STEATOSIS AND ALFAFETOPROTEIN (AFP) LEVEL IN EGYPTIAN PATIENTS WITH CHRONIC HEPATITIS C

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The prognostic importance of α -fetoprotein (AFP) level elevation in patients with chronic hepatitis C and its clinical significance in steatosis associated with HCV infection remain to be determined. The present study assessed clinical significance of elevated AFP in patients with CHC with and without steatosis. **Methods:** One hundred patients with CHC were divided into 50 patients with CHC and steatosis and 50 patients with CHC and no steatosis based on liver biopsy. **Results:** AFP was significantly increased in CHC with steatosis than patients without steatosis ($p < 0.001$). Highly significant positive correlation was found between serum AFP and necroinflammation as well as the severity of fibrosis/ cirrhosis and negative significant correlation with albumin level in chronic HCV with steatosis ($p < 0.001$), but negative non significant correlation with ALT and AST level ($p = 0.778$ and 0.398) respectively. Highly significant increase were found in chronic hepatitis patients with steatosis than CHC without steatosis regarding necroinflammation as well as the severity of fibrosis/ cirrhosis and AFP ($p < 0.001$). **CONCLUSIONS:** Patients with chronic HCV and steatosis have a higher AFP levels than those without steatosis. In chronic HCV with steatosis, elevated AFP levels correlated positively with HAI, and negative significant correlation with albumin level.

COULD HELICOBACTER PYLORI PLAY A ROLE IN PATHOGENESIS OF CHRONIC HEPATIC ENCEPHALOPATHY?

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Ammonia plays a pivotal role in hepatic encephalopathy. Although kidney and muscle may liberate ammonia, most is of gut origin with portal vein concentrations greatly exceeding systemic levels. The stomach when infected by urease-producing *Helicobacter pylori* can be an alternate site that contributes to absorbed ammonia. On the other hand, cytotoxicity has been described following exposure of hepatocytes to endotoxins in vitro and neutralization of endotoxin was proved to reduce hepatic inflammation and serum levels of aminotransferases and ammonia. The objective of this study was to determine whether *H.pylori* and endotoxaemia are risk factors for chronic hepatic encephalopathy.

Methods: After assessing liver functions and portal hypertension, 60 cirrhotics were evaluated for encephalopathy, *H.pylori* infection and systemic endotoxaemia. Twenty non-cirrhotic subjects with upper abdominal symptoms served as a control group. Response to 2 weeks of amoxicillin (2 g/day) and omeprazole (40 mg/day) was then assessed in 20 (10 *H.pylori*-positive and 10 *H.pylori*-negative) encephalopathic patients.

Results: *H.pylori* infection was more common among encephalopathic patients

CRYPTOSPORIDIUM AND GIARDIA IN WATER IN ALEXANDRIA: DETECTION AND EVALUATION OF VIABILITY BY FLOW CYTOMETRY AND DIFFERENT STAINS

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Cryptosporidium oocysts and Giardia cysts have become ubiquitous in surface waters worldwide. The number and extent of outbreaks of waterborne diseases indicate a significant risk for their possible transmission by drinking-water. Since many Egyptian cities depend on surface water as their main source of drinking water, knowledge of the prevalence of waterborne protozoa in water resources is important. **Objective:** The present study was designed to use flow cytometry to detect Cryptosporidium oocysts and Giardia cysts in water samples in Alexandria city in comparison with the standard staining techniques. Testing the viability of the encountered parasites was also carried out comparing flow cytometry and trypan blue vital stain. Materials and **Methods:** Thirty water samples were collected from water tanks from different districts of Alexandria city. Samples were subjected to staining techniques and flow cytometry. Stains used were modified Zeihl-Neelsen (MZN), safranin methylene blue (SMeB), and modified trichrome, fluorescent stains (phenol auramine and acridine orange). Viability was evaluated comparing trypan blue stain and flow cytometry using 4'-6-Diamidino-2-phenylindole immunostain (DAPI). **Results:** Flow cytometry proved to be much more sensitive than staining techniques with a sensitivity of 100% for both Cryptosporidium oocysts (30 samples) and Giardia cysts (11 samples). Following flow cytometry, the fluorescent phenol auramine stain had the greatest sensitivity of 94.74% and 80% (18 and 4 samples, respectively). The percent of live parasites present in each sample was always significantly higher by DAPI than trypan blue stain. **Conclusion:** The results of the present study clearly demonstrate that incorporation of flow cytometry can improve sensitivity of detection of Giardia cysts and Cryptosporidium oocysts in water samples. Although it is more expensive than the other staining methods, it is rapid, simple and accurate in estimating the quantity and viability of the parasites in each sample. Thus, flow cytometry can be recommended for detection of protozoa in water.

DAY OF SURGERY REJECTION OF DONORS IN LIVING DONOR LIVER TRANSPLANTATION: IS IT ACCEPTABLE?

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Accurate pretransplant evaluation of a potential live donor in living donor liver transplantation (LDLT) is of paramount importance in preventing postoperative liver failure and achieving donor safety. The aim of this work is to present our experience, with diagnostic laparoscopy as a tool, to exclude from donation on day of surgery in LDLT. Patients and **Methods:** Prospectively collected data of all potential donors in LDLT were analyzed. We started the technique of laparoscopic assessment of potential donors before proceeding to harvest part of the liver on the day of surgery after the first 65 LDLT patients. Results: A total of 87 LDLT were performed between November 2002 and October 2010. Four donors out of 69 (5.7%) were rejected on the day of surgery after open exploration of the abdomen because the liver was grossly fatty and pale in all 4 donors. Right hepatectomy was performed in one donor based on the results of liver biopsy despite the fatty gross appearance of the liver. The recipient developed primary non-function of the graft and the donor suffered small for size syndrome. After starting the policy of laparoscopic assessment, 8/30 (26.6%) donors were rejected on basis of laparoscopic findings before opening the abdomen. **Conclusion:** Laparoscopic assessment of potential donors in LDLT is a safe and acceptable procedure, which avoids unnecessary large abdominal incision in rejected donors and increases the chances to achieve donor safety.

DEEP SEDATION FOR COLONOSCOPY: A COMPARISON BETWEEN EXPERIENCED ANESTHETIC NURSE AND ANESTHETIC TRAINEE

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To review our sedation practice and to compare the clinical effectiveness of an experienced anesthetic nurse and anesthetic trainee administered propofol based deep sedation (PBDS) for colonoscopic procedure in adult patients. **Methods:** We undertook a retrospective review of the sedation service records of adult patients who underwent colonoscopy by using PBDS. All endoscopies were performed by staff endoscopists and fellows in gastroenterology. All sedation was administered by anesthetic nurse or anesthetic trainee. **Results:** A total of 438 endoscopies were performed during the study period. Of these, 220 patients were sedated by experienced anesthetic nurse (group N) and 218 patients were sedated by anesthetic trainee including resident and nurse student in anesthesiology (group T). All sedations were supervised by the staff anesthesiologist. Sedative agents in both groups were propofol, midazolam and fentanyl and were comparable dose among the two groups. There were no significant differences in patients' characteristic, mean sedation time, indication and type of intervention, success rate, staff consultation, ease of intubation, patient and endoscopist satisfaction, and complications between the two groups. Serious complications were none. **Conclusion:** Experienced anesthetic nurse and anesthetic trainee administered PBDS supervised by the staff anesthesiologist for colonoscopic procedure is safe and effective. The success rate, staff consultation, ease of intubation, patient and endoscopist satisfaction, and complications are comparable.

DE NOVO MALIGNANCIES AFTER LIVER TRANSPLANTATION: A SINGLE CENTER EXPERIENCE

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The recipients of LT are subjected to lifelong immunosuppression with its many drawbacks. De novo and recurrent malignancy in transplant recipients are attributed to attenuation of immunosurveillance. In the present study, we present our experience with de novo malignancies encountered after both Deceased (DDL) and Living donor liver transplantation (LDLT). Design and Setting: Retrospective, patients referred to prospectively collected database at liver Transplant center. Methods: Between April 2001 and December 2009, a total of 242 liver transplantation (LT) procedures were performed (165 DDLs and 77 LDLTs) in 232 patients (10 retransplants). **Results:** Eight patients (3.4%) developed de-novo post-liver transplant malignancies. De-novo malignancies included; (1) Post-liver transplant lymphoproliferative disorders (PTLD) in 5 patients who were all Epstein- Barr virus (EBV) positive, they were all successfully treated by Anti-CD20 monoclonal antibody therapy, reduction of immunosuppression, and control of EBV activity. (2) Urinary bladder cancer in one patient who was treated by radical surgical resection and chemotherapy but unfortunately died from bone and lung metastasis within one year of diagnosis; (3) Endometrial carcinoma in one patient who was treated by radical surgical resection; (4) Kaposi sarcoma in one patient who was successfully treated by surgical excision and reduction of Immunosuppression. **Conclusions:** EBV-associated PTLD is the most frequently encountered de novo malignancy after LT and is easily treatable by chemotherapy and reduction of immunosuppression.

DIAGNOSTIC ACCURACY OF SERUM PROCOLLAGEN III- N TERMINAL PEPTIDE (PIIINP) AS A DIRECT MARKER OF EXTRACELLULAR MATRIX DEPOSITION IN LIVER CIRRHOSIS

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The estimation of the degree of hepatic fibrosis is important for diagnostic and therapeutic management of patients with chronic liver diseases. Therefore, it would be valuable to find a potentially useful serum marker in patients with chronic hepatitis C reflecting the underlying pathological process. The aim of the present work was to study serum level of PIIINP as non-invasive index of the presence of cirrhosis in patients with chronic hepatitis C. **Patients and Methods:** The study was carried out on 20 patients with chronic hepatitis C and liver cirrhosis (Group I), 20 patients with chronic HCV without liver cirrhosis (Group II) and 10 healthy subjects as controls (Group III). Serum level of PIIINP was measured by radioimmunoassay. **Results:** Mean serum levels of PIIINP were 7.7 ± 4.2 , 5.2 ± 2 and $4.4 \pm 1.5 \mu\text{g/l}$ in groups I, II and III respectively. The value of serum PIIINP was significantly higher in group I than in groups II and III ($p=0.012$). On the other hand, no significant difference was found between groups II and III. A significant +ve correlation was found between serum PIIINP and Child-Pugh score in patients with chronic HCV and liver cirrhosis ($p=0.02$). Significant +ve correlation was noticed between serum PIIINP and histopathological grading and staging in group I ($p<0.05$). Significant positive correlation was found between serum PIIINP and portal vein diameter ($P<0.05$). While, significant negative correlation was observed between serum PIIINP and portal vein velocity ($P<0.05$). PIIINP exhibits 80% specificity, 50% sensitivity at a cutoff value of $6.7 \mu\text{g/l}$ in the prediction of cirrhotic changes. **Conclusion:** Elevated serum level of PIIINP in patients with liver cirrhosis may provide a new dimension in the assessment of liver fibrosis in patients with chronic HCV. Moreover, the significant positive correlation between PIIINP and each of histopathological grading and Child-Pugh score might reflect its role in the evaluation of necroinflammatory changes and progression of liver cirrhosis.
