
A BIOCHEMICAL INDEX FOR PREDICTION OF FIBROSIS IN EGYPTIAN CHRONIC HEPATITIS C INFECTED PATIENTS

Authors: Atef A. Abo Elsayd¹, Ayman M. El lehleh¹, Rehab M. Samaka², Ahmed H. Ali¹

Affiliation: Tropical Medicine¹ & Pathology² Departments, Faculty of Medicine, Menoufiya University, Shebein Elkom, Egypt.

Presenting Author: Rehab M. Samaka

Hepatitis C virus (HCV) is a major health problem globally. Egypt has the highest HCV prevalence in the world with an average of approximately 13.8% in the general population. Assessment of liver histology is pivotal in patients with HCV. The liver biopsy is an invasive procedure with complications and a non-invasive alternative would be preferable. In this study, an index depending on standard biochemical serum markers (The Göteborg University Cirrhosis Index) (GUCI) was calculated. **Methods:** Sera samples from Egyptian chronic HCV patients and living liver donors serving as controls collected at time of liver biopsy and were analyzed using routinely available biochemical markers of liver disease. Liver histology was evaluated using the Ishak protocol and the relationship between the serum biochemical markers and cirrhosis (Ishak stage • 5) as well as bridging fibrosis (Ishak • 3) was examined. **Results.** Three cut off points of the GUCI score were chosen. When a GUCI cut off value of 0.5, the sensitivity was 100% and specificity 0% for excluding bridging fibrosis. The negative predictive value (NPV) and positive predictive value (PPV) were 100% and 53%, respectively. Using a cut-off value of 2.1, the sensitivity was 96% and specificity 100% for diagnosis of bridging fibrosis and the NPV and PPV were 88% and 100%, respectively. Using a cutoff point of 4.1, the sensitivity was 100% and specificity 100% for diagnosing liver cirrhosis and the NPV and PPV were 100% for both. **Conclusion.** A GUCI score below 0.5 or above 4.1 of HCV patients can reduce the need for liver biopsy and has been suggested as a potential alternative new era tool with a high degree of accuracy.

ACUTE ABDOMEN: UNUSUAL PRESENTATION OF GIST

Author: Galal Abul-Naga

Affiliation: Alexandria University surgical department, Egypt

A gastrointestinal stromal tumor (GIST) is one of the most common mesenchymal tumors of the gastrointestinal tract (1-3% of all gastrointestinal malignancies). They are typically defined as tumors whose behavior is driven by mutations in the Kit gene or PDGFRA gene, and may or may not stain positively for Kit. Patients present with trouble swallowing, gastrointestinal hemorrhage or metastases (mainly in the liver). Intestinal obstruction is rare, due to the tumor's outward pattern of growth. Often, there is a history of vague abdominal pain or discomfort, and the tumor has become rather large by time the diagnosis is made. Generally, the definitive diagnosis is made with a biopsy, which can be obtained endoscopically, percutaneously with CT or ultrasound guidance or at the time of surgery. It is rare to present as acute abdomen. We present a case of GIST discovered during management of a case of acute abdomen.

ALTERATIONS IN LIPOPROTEIN PATTERNS AND LIPID PEROXIDATION IN
EGYPTIAN PATIENTS WITH HEPATOCELLULAR CARCINOMA: CORRELATION
WITH CHILD -PUGH AND MELD SCORE

Authors: Nasser Mousa¹, Tarek Besheer¹ Yahia Gad², Ibrahim Abd El-Aal³

Affiliation: ¹ Tropical Medicine Department, ² Internal Medicine Department, ³ Clinical Pathology Department, Mansoura University, Egypt.

Hepatocellular carcinoma (HCC) constitutes the 5th most frequent cancer worldwide. Liver is one of the most important organs in energy metabolism and plays a critical role in both the production and catabolism of lipids, lipoproteins and apolipoproteins. This study was aimed to analyze the Serum lipid profile as well as C-reactive protein (CRP) and Malondialdehyde (MDA) among Egyptian patients with chronic HCV infection suffering from HCC and its correlation with Child-pugh and MELD score. **Methods:** This study was carried out on 91 patients (52males, 39 females) with HCC and 90 cirrhotic controls. The patients were classified according to Child-pugh classification into Child A (n=26),B(n=31) and C(n=34), according to MELD score into 32 patients • 9 and 59 > 9 and according to size of HCC into 33 patients • 5cm and 58 patients >5cm . Serum lipid profiles, MDA and CRP were determined by conventional methods. **Results:** Serum levels of Cholesterol, triglycerides (TG), low-density lipoproteins (LDL), high-density lipoproteins (HDL) were significantly decreased in patients with HCC than control (p=0.005,0.005,0.008 and 0.009) respectively, however CRP and MDA are significantly increased compared to control (p=0.006). With progression from Child A to Child C there were significant decrease in lipids profiles and significant increase in CRP and MDA. In MELD score • 9 lipids profiles were significant increases when compared with MELD score > 9. Whereas in CRP and MDA showed significant decreases in MELD score • 9 than MELD score > 9 (p=0.045 and 0.001). Lipids profiles were significant increase in HCC • 5cm than HCC> 5cm; however CRP and MDA showed significant decreases in HCC • 5cm than HCC> 5cm. **Conclusion:** There were significant alteration in the serum lipid profiles, MDA and CRP parameters in patients with HCC and could be used as prognostic value.

ANESTHESIA FOR SMALL BOWEL ENTEROSCOPY PROCEDURE IN A WORLD GASTROENTEROLOGY ORGANIZING TRAINING CENTER IN THAILAND

Authors: Somchai Amorniyotin, Siriporn Kongphlay

Affiliation: Department of Anesthesiology and Siriraj GI Endoscopy Center, Faculty of Medicine, Bangkok, 10700, Thailand

Presenting Author: Somchai Amorniyotin

Enteroscopy procedure is another diagnosis and treatment option for gastrointestinal tract abnormalities especially for small bowel pathologies. The authors studied and reviewed anesthetic data as a basis for further research. **Methods:** Retrospectively analyzed the patients on whom enteroscopy procedure had been performed during the period of March, 2005 to November, 2010 in Siriraj Hospital. The patients' characteristics, preanesthetic problems, anesthetic techniques, anesthetic agents, anesthetic time, type of procedure and complications were assessed.

Results: There were 145 patients who received the procedure during study period. The age group of 50-69 years was the highest one (46.9%). Most patients had ASA class II (57.2%). The indications of procedure were gastrointestinal bleeding (58.6%), chronic diarrhea (15.2%), protein losing enteropathy (2.1%) and others (24.1%). Hematologic disease, cardiovascular disease and hypertension were the most common pre-anesthetic problems. General anesthesia and intravenous sedation was the anesthetic technique mainly employed. Anesthetic agents were mainly administered with propofol, midazolam and fentanyl. The mean anesthetic time was 92.8 ± 48.4 minutes. The indications for enteroscopy procedure were gastrointestinal bleeding (58.6%), chronic diarrhea (13.8%), protein losing enteropathy (2.1%) and others (15.5%). Single balloon and oral intubation was the most common type and route of enteroscopy. The most frequent anesthetic complication was hypotension. **Conclusion:** During anesthetic management for enteroscopy procedure, special techniques or drugs in anesthesia are not routinely required, however, the anesthetic personnel had to optimize the patient's condition for safety and there should be an awareness of complications.

ANT DIABETIC STRATEGIES IN PANCREATIC CANCER: METFORMIN

Author: Talaat Abdel Atti

Affiliation: Diabetology Unit, Alexandria University, Egypt

Recent investigations have shown that metformin, the most widely prescribed drug for the treatment of type 2 diabetes mellitus; inhibit pancreatic cancer growth in preclinical animal models and human pancreatic cancer cells in culture. As the current therapies for pancreatic cancer offer very limited survival benefits, novel therapeutic strategies are urgently required to prevent and treat this aggressive disease. The new results assume an added importance in view of the fact that metformin is an FDA-approved drug (Glucophage) currently used in the treatment of type 2 diabetes mellitus. Additional interest in the new research is provided by recent epidemiological studies indicating that administration of metformin reduces the incidence and improves prognosis in pancreatic cancer patients. For example, a recent epidemiological report linked administration of metformin with a 62% reduced risk of pancreatic cancer in patients with type-2 diabetes mellitus (Li D, Yeung SC, Hassan MM, Konopleva M, Abbruzzese Gastroenterology, 2009; 137: 482-8.). Epidemiological studies from other groups from the UK also confirmed that metformin therapy (but not other antidiabetic drugs in use) is associated with greatly reduced risk of pancreatic cancer. However, epidemiological studies cannot define the precise mechanism(s) by which metformin inhibits the proliferation of cancer cells. Indeed, it was not known whether metformin has any direct effect on pancreatic cancer growth. The most interesting piece of new information is that administration of metformin markedly inhibited the growth of human pancreatic cancer cells in animal models.

ANTHELMINTIC EFFECT OF ARTESUNATE IN EXPERIMENTAL HETEROPHYID INFECTION

Authors: Fouad M. Fathy

Affiliation: Alexandria medical faculty

Presenting Author: Fouad M. Fathy

Artesunate is a water-soluble semi-synthetic drug derived from artemisinin which is extracted from leaves of the Chinese plant *Artemisia annua*. This successful basically-antimalarial drug has been proved to be also effective against trematodes like *Schistosoma japonicum*, *S.mansoni*, *Fasciola hepatica* and *Clonorchis sinensis*. The present work aimed to investigate the in-vivo efficacy of artesunate against heterophids in mice, using praziquantel as a therapeutic control. Results showed that artesunate was effective in treatment of experimental heterophyidiasis as proved by a 100% reduction of intestinal adult worm count at a dose regimen of 200 mg/kg/day, given for 3 successive days. Besides, surface tegumental damage of the adult worm was observed by SEM in form of bleb formation, erosion and disruption. The proved therapeutic efficacy of artesunate together with its reported safety, favor its possible use as a new alternative therapy in human heterophyidiasis.

ASSESSMENT OF PROSTATE IN PATIENTS WITH POST- HEPATITIC CIRRHOSIS

Authors: Mohammed A. Nouh, Ayman M. El-Lehle, Fatma A. Al-Serafy* and Ahmed R. Gaber

Affiliation: Tropical Medicine and Urology* department, Menoufiya University

The prostate gland is a dynamic organ that plays a significant role in reproduction. **Aim of the work:** The aim of the present work is to study the effect of different grades of post-hepatitic cirrhosis on prostate volume and serum levels of testosterone and estradiol. **Patients and methods:** This study was conducted on 60 male individuals; 45 of them are patients with liver cirrhosis (cirrhotic group or G I) and 15 healthy persons of matched age (control group or G II). The cirrhotic group was further divided into three subgroups GI a, GI b and GI c according to Child-Pugh classification each of the three subgroups includes 15 patients. All groups were subjected to thorough history taking, full general, local examination, laboratory investigations, abdominal and transrectal ultrasonography. **Results:** Results showed that, decreased prostatic volume is significantly present in cirrhotic patients and this atrophy is more evident with advanced stages of liver cell failure. As regards mean total & free testosterone levels of the studied groups, there was a highly statistical significant difference between the studied groups regarding mean total and free testosterone levels and the level of total and free testosterone was significantly reduced with advanced stages of liver cell failure. As regards mean estradiol level of the studied groups, there was a highly statistical significant difference between the studied groups regarding mean estradiol level and the level of estradiol was significantly increased with advanced stages of liver cell failure. **Conclusion:** it was concluded that, decreased prostatic volume is significantly present in cirrhotic patients and this atrophy is more evident with advanced stages of liver cell failure. Significant decreases in serum testosterone level (total and free) as well as, significant rise in serum estradiol level in Child C cirrhotics suggest hormonal origin of prostatic atrophy in advanced stages.

**ASSESSMENT OF SPLENIC STIFFNESS USING ACOUSTIC RADIATION FORCE
IMPULSE ELASTOGRAPHY (ARFI) FOR PREDICTION OF ESOPHAGEAL VARICES
IN HCV RELATED HEPATIC CIRRHOSIS**

Author: El -Yamany A., Salem P.

Affiliation: Hepatobiliary Unit, Faculty of Medicine, Alexandria University

Splenomegaly is a common finding in liver cirrhosis that should determine changes in the spleen's density because of portal and splenic congestion and/or because of tissue hyperplasia and fibrosis. These changes might be quantified by ARFI. In chronic hepatopathies, the evaluation of liver fibrosis is essential. Until some years ago, the evaluation of fibrosis was made only by liver biopsy, considered to be the "gold standard" for hepathological evaluation

As liver stiffness measurement by non invasive methods is increasingly used to estimate liver fibrosis in patients with chronic liver diseases. We aimed at establishing values of spleen stiffness assessed by ARFI in patients with HCV related hepatic cirrhosis and to evaluate its predictive value for the presence of cirrhosis, the presence and severity of esophageal varices and the risk of bleeding due to ruptured varices. **Patients and methods:** Our study included 50 HCV related hepatic cirrhosis. All participants were examined using the Siemens ACUSON S 2000 Ultrasound Virtual Touch Tissue Quantification™ system. Ten measurements were performed on the liver and five measurements on the spleen, and the obtained mean values (shear wave velocities (SWV) expressed in m/s) were compared in different groups.

ASSESSMENT OF USE OF DcR 3 IN DIAGNOSIS OF DYSPLASTIC LESIONS AND ADENOCARCINOMA OF THE ESOPHAGUS

Authors: Dr. Ahmad M. Ragab Shalaby ** Dr. Hany Kotb El-Refaei *** Dr. Hanan Abbass Hasan **** Saeed M. Naguib

Affiliation: *Oncologic Pathology Department, King Fahd Medical City, KSA, & Oncologic Pathology Department in Damanhour National Medical Institute, Egypt ** Assistant Professor of Surgery in Damanhour National Medical Institute, Egypt ***Senior Gynecologist in Security Forces Hospital in Riyadh, KSA **** Assistant Consultant of Immunology in Damanhour National Medical Institute, Egypt

Presenting Author: Dr. Ahmad M. Ragab Shalaby

Assessment of Use of DcR 3 in Diagnosis of Dysplastic Lesions and Adenocarcinoma of the Esophagus **Abstract Background:** Because of confusion with gastric cancers arising at the gastro-esophageal junction, true esophageal adenocarcinomas were thought to be unusual. Esophageal adenocarcinoma (EAC) is becoming more common worldwide with increasing incidence. **Material and Methods:** Overexpression of decoy receptor (DcR) 3 protein, - a recently discovered member of the tumor necrosis factor receptor super-family, was examined in 60 esophagogastrectomy specimens containing areas of Barrett esophagus (n = 27), low-grade dysplasia (n = 40), high-grade dysplasia or carcinoma in situ (n = 33), and esophageal adenocarcinoma (EAC; n = 42) with immunohistochemical analysis. **Results:** The results revealed significantly more overexpression of DcR3 in high-grade dysplasia or carcinoma in situ and EAC than in benign esophageal mucosa (both $P < 0.0001$), Barrett esophagus (both $P < 0.001$), and low-grade dysplasia ($P < 0.01$ and $P = 0.033$, respectively). Low-grade dysplasia also showed significant overexpression of DcR3 compared with benign esophagus ($P < 0.05$) but not with Barrett esophagus ($P > 0.05$). DcR3 overexpression seems to negatively correlate with the grade of EAC. **Conclusion:** Our results suggest that overexpression of DcR3 protein might aid in the diagnosis of high-grade dysplasia or carcinoma in situ and EAC and also might serve as a potential therapeutic target. **** Keywords:** Esophageal adenocarcinoma, Barrett esophagus.

A STUDY ON BLASTOCYSTIS HOMINIS IN FOOD-HANDLERS: DIAGNOSIS AND POTENTIAL PATHOGENICITY

Authors: Fouad M. Fathy

Affiliation: Alexandria medical faculty

Presenting Author: Fouad M. Fathy

Proper diagnosis of *Blastocystis hominis* is not performed routinely in medical laboratories of developing countries; consequently clinical significance of this common intestinal protozoon is liable to remain unsettled. Food-handlers are more prone to get and transmit this feco-oral infection. This work aimed to compare the sensitivity of fecal direct diagnostic methods to detect *B.hominis* and estimate the true prevalence among food-handlers in Sirte-Libya and also to determine the association between the parasite and gastrointestinal symptoms beside the response to specific treatment. The study was carried out on 400 male food-handlers aged 18-50 year; each was subjected to detailed clinical questionnaire and repeated stool examination by different methods. showed a high prevalence of *B.hominis* in food-handlers (35.5%). Short term in-vitro culture (on Boeck and Derbholav medium) was the most sensitive method for detection of *B.hominis* (35.5%), followed by permanent Trichrome-stained smear (27.5%), saline-sedimentation concentrated smear (21%) and simple iodine smear (14%). Out of 108 cases having *B.hominis* alone, 68.5% were symptomatic. Diarrhea was the most frequent symptom (75.6%), followed by cramping abdominal pain (66.2%) and flatulence (43.2%). Fecal parasite-load was significantly higher in symptomatic cases than asymptomatic; parasite and symptoms disappeared after metronidazole treatment. Therefore, culture should be used routinely to detect *B.hominis* which should be considered pathogenic particularly when present alone in large numbers in symptomatic patients. All positive cases, however, should be treated to diminish both morbidity and transmission.

ATYPICAL ACUTE HEPATITIS A

Author: Amany El-yamani

Affiliation: Alexandria University HPB UNIT

Acute hepatitis A virus (HAV) infection is usually a self-limited disease conferring lifelong immunity. Fulminant hepatitis is uncommon but has been described in some settings such as in patients with preexisting chronic hepatitis C (1). Chronic liver disease does not occur except in rare individuals in whom hepatitis A virus infection serves as a trigger for the development of autoimmune hepatitis. Three atypical clinical manifestations of acute infection are recognized: prolonged cholestasis, relapsing hepatitis, and extra hepatic disease associated with acute infection

AUTOIMMUNE PANCREATITIS: PATHOPHYSIOLOGY OF IGG4

Authors: Åke Andrén-Sandberg, Abu Zar Manan

Affiliation: Department of Surgery, Karolinska Institutet at Karolinska University Hospital, Huddinge, S-141 86 Stockholm, Sweden

High levels of IgG₄-positive plasma cells are commonly seen in autoimmune pancreatitis. It has become evident that autoimmune pancreatitis is one component of a larger multi-system disease. IgG₄-positive plasma cells have been identified in many extrapancreatic tissues, including the colon, biliary tract, liver, and lungs, and thus the term "IgG₄-related sclerosing disease" has been proposed. Awareness of IgG₄-related sclerosing disease is important, as it has been shown to mimic other conditions like malignancy. One review discussed IgG₄-related colitis and its potential for mimicking inflammatory bowel disease (1).