The debate on surgical approaches of gastroesophageal junction carcinoma and our clinical practice

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The incidence of gastroesophageal junction carcinoma is high in the surrounding area of Taihang Mountain in China. Due to the special anatomical location and deferent surgical technologies, the ideal surgical approaches is still under debate and being explored, and the choice of surgical approach is a controversial problem. Traditionally, the surgical approaches of gastroesophageal junction carcinoma include transthoracic approach and transhiatal approach. The transthoracic procedure is performed more commonly by means of combined laparotomy and right thoracotomy (Ivor Lewis procedure). Other options include left thoracotomy with or without cervical incision, a single left thoracoabdominal incision, or a three-incision resection with a cervical anastomosis (McKeown procedure). The transhiatal approach is performed through midline laparotomy and left cervical incision. There has been considerable controversy about which procedure provides the best short- and long-term outcomes. Theoretically, each surgical approach has deferent advantages and disadvantages.

With the progress and development of surgical theory and technology, on the bases of our clinical practice, our team develops new surgical approaches for the surgical treatment of gastroesophageal junction carcinoma, which include laparoscopically transhiatal procedure for type Sewert and gastroesophageal junction carcinoma and laparoscopically trans-hiatal-mediastinum procedure for type Sewert gastroesophageal junction carcinoma. Our approaches integrate the advantages of the traditional procedures, compensate for the disadvantages of the traditional procedures to make the surgical treatment of gastric esophageal junction carcinoma safer, more reliable, more radical resection, more minimally invasive.

Biography
Guojun Wang is a general surgeon on gastroenterology surgery at the first affiliated hospital, Zhengzhou University, China. He graduated from Xinxiang medical college and got a medical bachelor’s degree in 1991; Graduated from the first affiliated clinical medical college, Xi’an Jiaotong University and got a medical master degree in 2002; Graduated from West China clinical medical college, Sichuan University and got medical a doctor degree. He specializes in clinical diagnosis and surgical treatment of digestive tract diseases and related basic research work, especially in minimally invasive surgical treatment of upper digestive tract tumors. He has published more than 40 research articles, book chapters and edited 3 books in general surgery and digestive tract diseases field. He has published more than 10 papers in reputed journals.
Volatile organic metabolites as novel, non-invasive diagnostic biomarkers of gastrointestinal disorders

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The Diagnosis of gastrointestinal (GI) disorders requires extensive and often invasive investigations including colonoscopy and histology and places a heavy burden, both on healthcare resources, because of the cost, and on the individual, in times of disease-related disability and poor quality of life. Recently, there has been increasing interest in non-invasive biomarkers to diagnose different GI diseases and to monitor the disease activity. There is growing scientific interest in the investigation of volatile metabolites and numbers of studies have focused on the utilization of non-invasive biomarkers in the diagnosis of GI disease.

The development of sophisticated analytical techniques has enabled the study and interpretation of changes in the faecal and breath volatile organic metabolites (VOMs) and its correlation with the pathophysiological mechanisms in the GI diseases. VOMs are the chemicals that are the products and intermediates of metabolism and may be altered during the diseases process. Changes in the signature of VOMs could potentially provide diagnostic information about health and disease. Multiple studies have reported the differences in VOM profiles of healthy controls vs. patients with liver and other GI disorders. VOM profiles have been used to segregate patients by disease activity and the type of disease. The correlation of VOMs with microbiota is interesting and supports the hypothesis of gut microbial dysbiosis in the etiology of liver disease. This provides an important platform to explore the role of dysbiosis in liver and other GI disorders pathogenesis and development of novel therapeutic targets. In future, further understanding of faecal VOMs may lead to the development of a rapid and simple point of care diagnosis and monitoring of Liver.

Biography
Iftikhar Ahmed is a consultant gastroenterologist at Aldara Hospital & Medical Centre Riyadh KSA and visiting consultant at East Sussex Hospitals NHS foundation trust Eastbourne UK. He is Senior clinical lecturer at the University of Southampton UK. His research interests include investigating the changes in the smell of faeces and breathe in order to understand the pathophysiological mechanisms of GI disorders and to develop a non-invasive biomarker. Through formal laboratory research, Dr Ahmed studied the faecal volatile metabolomics profiles of patients with Liver disease (NAFLD), inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS) in comparison with healthy individuals, and was awarded the degree of Doctorate of Medicine (MD) by University of the Bristol in 2012. Dr Ahmed received several awards and grants for his excellent work presented both nationally and internationally. He has collaborative research experience with international colleagues, presented his work at both national and international conferences, and was awarded travel grants and prizes for the best abstracts and oral presentations on various occasions. He is on the reviewer panel of several national and international journals, including Gut, PLoS One, Journal of Gastrointestinal and Liver Disease and BMJ.
How to reduce the incidence of normal appendix after appendicectomy is a case of suspected acute appendicitis?

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Right iliac fossa pain is a common clinical presentation in all age groups. Acute appendicitis is the commonest diagnosis made at the emergency department, even before any investigations being done. Even though similar symptoms are found in many other conditions, the medical and para medical personalities are convinced with the diagnosis of acute appendicitis. With this leading thought they process the case towards the management of acute appendicitis. Hence the patient ends up in appendectomy as an emergency procedure. Unfortunately, about 28 percent of cases of males and 48 percent cases of females are found to have normal appendix in the histopathological report. Due to this hasty decisions, not only the patient ends up in removing a normal appendix but also do not receive the correct diagnosis for his or her pain.

In the past appendix was considered as a vestigial organ. Various studies shows that not only appendix has its own role in the development of immunity. But also it acts as a rebooting house for commensals in the gut. The lumen of the appendix suits the bile duct which is an added advantage of retaining a normal appendix. A careful examination prior to the surgery can help to reduce the incidence of removing a normal appendix and gives the surgeon a chance to explore the real cause of right iliac fossa pain.

We suggest numerous methods including clinical examinations to find differential diagnosis and investigations in order to avoid the incidence of negative appendicitis in the clinical practice

Biography
Aruchamy Ramalingam is an Associate Professor, Clinical at Newcastle University, Medicine, Malaysia. He had done his fellowship in Tokyo, Japan. He had presented numerous papers at various conferences in Japan, Malaysia, Singapore and Australia. He had conducted two international conferences in Malaysia. He had involved in teaching clinical medicine for medical students at Newcastle University, Malaysia. He does clinical work along with teaching at 4 teaching hospitals in Malaysia.
Relation of Cytokeratin18 fragment M30 with hepatic histological severity (activity) in patients with chronic hepatitis B virus infection

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Introduction: Chronic hepatitis B virus (HBV) infection remains a serious public health problem affecting more than 400 million people worldwide. Cytokeratin (CK)18 is an intermediary filament protein, expressed in hepatocytes, which is proteolytically cleaved during liver damage. M30 epitope of cytokeratin18 (CK18-M30) is involved at different levels in apoptotic pathways. In this study, we aimed to investigate whether serum CK-18 fragment M30 level significantly correlate with the histological severity (activity and fibrosis) in patients with chronic hepatitis B virus infection.

Materials and methods: A total of 40 patients with chronic hepatitis B (CHB) were enrolled in this study between January to August 2016. All CHB cases underwent liver biopsy for METAVIR score. Serum CK-18 M30 were measured by ELISA in all patients.

Results: Of the total 40 patients, all were HBsAg positive, 24(60.0%) were HBeAg negative and 16(40%) were HBeAg positive. The mean ALT and AST, HBV DNA levels were 66.4±28.20IU/L, 40.2±20.2IU/L and 5.3±1.7IU/ml in logarithmic scale respectively. Among them significant histological activity (A2, A3) were found in 12(30%) of HBeAg positive cases and 21 (58.3%) of HBeAg negative cases. Mean Serum CK -18 fragment M30 level 128.8±32.9 was HBeAg Positive CHB and 123.9±28.1 in HBeAg Negative CHB. Results showed that serum concentrations of CK18 were not significantly increased in a stepwise fashion from A0 to A3 but serum concentrations of CK18 were significantly increased in a stepwise fashion from F1 to F3. A significant correlation was found between ALT, AST level and the METAVIR histological activity scores (P=0.036 and 0.016). We found weakly positive correlation between the stages of fibrosis (F1 to F3) and Serum CK-18 fragment M30 level (r= 0.084; p=0.550) but no correlation between the histological activity score and Serum CK-18 fragment M30 level (r= -0.073; p=0.357).

Conclusion: This study indicates there is weakly positive correlation between the stages of fibrosis (F1 to F3) and Serum CK-18 fragment M30 level in patients with chronic hepatitis B virus infection. So CK-18 fragment M30 can be used as a noninvasive biomarker of hepatic fibrosis in patients with HBV related compensated chronic liver disease.

Keywords: chronic hepatitis B, HBeAg, HBV DNA, ALT, AST, liver histological activity, CK-18 fragment M30.

Biography
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The therapeutic effects of matrine for MCD-induced NASH are associated with upregulation of HSP72 and suppression of mTOR

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Non-alcoholic steatohepatitis (NASH) is an advanced stage of the metabolic syndrome in liver with serious consequences largely because of hepatic injury, inflammation and fibrosis. Matrine (MW: 248) is used as a prescribed hepatoprotective drug in humans and it has been shown by us to decrease hepatosteatosis and glucose intolerance in high fat-fed mice (Bri J Pharmacol 172:4303,2015). Here, we investigated whether matrine exerts therapeutic efficacy for NASH by attenuating hepatic injury, inflammation and fibrosis. The study was performed in methionine choline-deficient (MCD) diet-fed mice for 6 weeks with or without the treatment with matrine (100 mg/kg/d). Compared with untreated MCD-fed mice, matrine markedly reduced hepatic injury (indicated by ALT level, p<0.05), inflammation (indicated by TNFα, CD68 and inflammasome NLRP3, all p<0.05). Along with these effects, matrine inhibited MCD-induced increases in fibrogenesis (as indicated by the expression levels of TGFβ, Smad3 and type I collagen (all p<0.05). Further examination revealed that matrine resecured MCD-suppressed heat shock protein 72 (HSP72, a protective chaperon protein against cell toxicity) and inhibited MCD-activated mTOR (a key master regulator triggering pathogenic pathways leading to NASH). Our findings indicate that matrine attenuated MCD-induced NASH by a new mechanism involving the upregulation of HSP72 and inhibition of mTOR. This hepatoprotective drug may be repurposed for the treatment of NASH.

Biography
Ali received the Bachelor of Clinical Laboratory Sciences, College of Applied Medical Sciences from King Saud University in Riyadh, KSA in 2005, and the Master of Laboratory Medicine from RMIT University in 2010, a master research in the Cytogenetic and Molecular Cytogenetic Laboratories of the Murdoch Children Research Institute in Melbourne. He worked as medical technologist 1 in biochemistry lab in King Fahad Medical City 2006-2008 and 2011. His work involved the testing of quality control of the automated machines, analyzing and reporting blood samples for general biochemistry tests. He is currently a PhD at RMIT University, and A lecturer in the Laboratory Medicine Department at Al-Baha University. All currently research is study the evaluation of effectiveness and safety of Chinese medicine in the treatment of non-alcoholic fatty liver disease and liver-related disease. The common research topics include Molecular Biology, Metabolic Syndrome and Liver Diseases.

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Does cigarette smoking exacerbate high fat induced hepatosteatosis?

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Introduction: Over consumption of fat is well known to cause hepatosteatosis. Epidemiological studies suggest that cigarette smoking may exacerbate it to non-alcoholic steatohepatitis (NASH) which imposes more severe impact on the prognosis.

Aim: To investigate the effects of combined effects of these two life-style factors on the progress of from hepatosteatosis to NASH.

Methods: This study was conducted in C57BL/6J mice exposed to cigarettes for 14 weeks (4 cigarettes/day) in combination with high fat diet (HFD). The progression of body weight gain and glucose intolerance were assessed during this period of time and liver samples were collected at the end of the study for the assessment of NASH phenotype.

Results: In normal mice cigarette smoking alone did not cause any significant effects on plasma lipids, glucose tolerance or lipid content in the liver. HFD by itself resulted in marked obesity, hypertriglyceridemia, glucose intolerance and simple hepatosteatosis. Cigarette smoking alone resulted in moderate hepatosteatosis in the absence of obesity and glucose intolerance. Cigarette smoking sustained the metabolic effects of HFD in causing hypertriglyceridemia, fasting blood glucose, glucose intolerance and hepatosteatosis despite less body weight gain and adiposity. Further studies are underway to examine whether cigarette smoking exacerbate HF-induced hepatosteatosis to NASH.

Conclusion: Cigarette smoking is expected to exacerbate HF-induced hepatosteatosis to NASH by inducing oxidative stress as an additional insult. The results will advance our understanding of how these two common lifestyle factors together may impact on the development of NASH in combination.

Grant Support: NHMRC Australia and Diabetes Australia.

Biography

Sherouk has completed her first year PhD at RMIT University and obtained her Masters and Bachelors from RMIT University in Laboratory Medicine. She is the Laboratory officer at the Lipid Biology and Metabolic Diseases Laboratory. She is a part-time teaching staff at RMIT University teaching Pathology, Haematology, and Blood Transfusion Science.
Declining prevalence of Helicobacter pylori (H pylori) infection – A seroprevalence study in symptomatic adult patients in Dhaka, Bangladesh

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**Background:** The incidence of H pylori associated peptic ulcer disease has been shown to be decreasing worldwide. Prevalence of H pylori infection was higher in developing countries than that of the developed nations which was supposed to be due to improved hygienic conditions. Bangladesh a developing nation has been showing steady improvement of its socioeconomic along with overall sanitary condition for the last few years. This improvement might have an influence on H pylori transmission in this region of the world. The present study was aimed to know the trend in H pylori seroprevalence among symptomatic adult subjects.

**Methods:** This is a retrospective observational study conducted by using data collected from H pylori serology registry of Lab Aid Hospital – A tertiary Care Hospital at Dhaka. The test was done by an ELISA Kit on the serum samples collected from October 2016 to April 2018. Data from 4009 subjects were available for analysis.

**Results:** Of the total 4009 subjects 56% & 44% were male and female respectively. The overall seroprevalence of H pylori infection was 43% (2104/4009). More than 90% of individuals between 21 to 60 years of age had 40% H pylori infection rates. Less than 7% prevalence rate were seen below 20 years age group of subjects. Comparatively higher proportions of the male (56%) patients were H pylori seropositive than that of the female (44%). H pylori infection acquisition rates among these subjects were found nearly steady during the period of 2016 to 2018.

**Conclusion:** The overall seroprevalence of H pylori infection was 43% among these symptomatic adult patients. Though the reported H pylori seroprevalence of more than 90% among asymptomatic adults in Bangladesh seen in late 90s study. Lower prevalence of infection in less than 20 years patients group are suggestive of lower acquisition rates probably due to improving sanitary and hygienic conditions of this region. However further population based study is needed to know the exact trend in prevalence of H pylori infection in our set-up.
Patterns of complications and their risk factors following endoscopic retrograde cholangiopancreatography (ERCP)

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Endoscopic retrograde cholangiopancreatography (ERCP) is the gold standard for the treatment of common bile duct stones (CBDS) and palliative decompression of malignant strictures. The objective was to evaluate the pattern of complications and the risk factors following ERCP.

This prospective observational study was conducted at the Department of Gastroenterology, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka from February 2017 to October 2017. Clinical, biochemical and radiological examination was done before and after ERCP as per requirement.

From the study data it was concluded that pancreatitis, bleeding and cholangitis were some of the complications following ERCP. Among these, Pancreatitis was the most frequent complication and multiple attempts of cannulations with prolonged duration of procedure was its main risk factor.

Biography
Md. Rehan Habib is a Physician from Bangladesh. He has completed his Bachelor of Medicine and Surgery from Rangpur Medical College in 2006. He has a FCPS degree in medicine under the Bangladesh College of Physicians And Surgeon (BCPS) and also completed his MD in Gastroenterology in 2018. He is skilled in endoscopic procedure and advanced interventional gastroenterology.
Iron Overload – and Gastrointestinal absorption

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Inspite of increasing store of body iron, the inappropriately low iron status of the hereditary hemochromatosis, enterocyte continues to drive the hyper-absorption of dietary iron leading to iron overload. The mechanisms accounting for iron excess are not only digestive hyperabsorption of iron but also excessive recycling of macrophagic iron coming from erythrophagocytosis and secreted into the blood. Stored iron seems to impact negatively on insulin action even in healthy people, and not just in classic pathologic conditions associated with iron overload (hemochromatosis and hemosiderosis). Early diagnosis and treatment by phlebotomy can improve blood glucose control in the early stages of the disease. with unusual dietary habits mildly increased amounts of iron in the liver can increase hepatic injury, particularly if combined with other hepatotoxic factors, such as use of alcohol, porphyrogenic drugs, or chronic viral hepatitis. More recently, elevated hepatic iron levels also have been observed in chronic hepatitis C virus (HCV) infection.

Consumption of coffee, tea decrease iron overload in Liver and thereby reduces the oxidative stress of iron overload in liver as well. various dietary enhancers, inhibitors, and host-related factors on absorption and bioavailability values of Heme and Non Heme iron should be considered for setting dietary Iron intake resulting in iron overload due to different reasons.

Biography
Sandeep Poddar, Senior Research Director and Executive Editor (Publications), Member of Board of Studies, Lincoln University College, Malaysia. He has been working as Chief Executive Editor of Lincoln University College, Publications, Founder Executive Editor of International Journal of Advancement in Life Sciences Research, and also editorial Board member of Malaysian Journal of Nursing, Malaysian Journal of Medical Research, International Journal of Business and Tourism and Lincoln News. He is working as Reviewer of Journals, Brazilian Archives of Biology and Technology, Infection, Disease & Health, International Journal of Human Genetics, Jordan Journal of Biological Sciences, The Journal of Zoology Studies.

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Mushrooms cause hypersensitivity pneumonitis in workplace?

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Edible mushrooms are essential for three main reasons: i) as a source of income; ii) as a source of nutrition and health properties; and iii) to help to recycle nature and forests. Many mushrooms are known to have nutritional values and are referred to as organic food. They are known for having not only sufficient quantities of essential vitamins (B1, B2, and C), proteins, carbohydrates, fibres and other minerals, but also a very low fat content. Edible oyster mushroom has gained popularity as an edible mushroom in many parts of the world especially in Malaysia due to its numerous advantageous properties. A method of oyster mushroom cultivation on particular substrate mostly sawdust which is generally in the conventional mushroom farms / air-conditioned houses, produced an economical yield throughout the year. The growing mushroom, however, usually results in workers’ allergic symptoms usually in their Lungs. This talk will review outbreaks of mushroom worker’s lung (MWL) in modern and conventional mushroom factories and discuss the diagnosis, improvement, and prevention of the disease.

Biography
Farhat A. Avin is a senior lecturer and program coordinator at the Department of Biotechnology, Lincoln University College, Malaysia. He did his postdoctoral research at the Institute of Biological Sciences, University of Malaya. He has published several research articles, participated in national and international conferences, organized workshops and seminars, supervised master and bachelor students and filed a patent. He has also been serving as a reviewer in a number of international journals.
Patient safety culture - Need of the hour

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Patient safety is the prevention of harm to patients, through errors of commission and omission. Patient safety is a high-priority issue for all professionals like pharmacists who care for the health and general well-being of people like pharmacists. For centuries, pharmacists have been the guardians/safeguards against “poisons” those substances which could cause harm to the public. Now more than ever pharmacists are charged with the responsibility to ensure that when a patient receives a medicine, it will not cause harm. According to the Institute of Medicine – an independent, nonprofit organization - at least 1.5 million Americans are sickened, injured, or killed each year by medication errors. The cost related to preventable errors has been conservatively estimated at $3.5 billion a year and does not include lost wages, decreased productivity and additional health care costs. For each category of medication errors, steps can be taken by providers and patients to limit the occurrence of errors.

Dispensing errors occur when patients receive a medication that was not intended to be given by the prescriber. Several factors contribute to this error, such as hard-to-read prescriptions, medications that have similar names or appearances, patients who have the same name as another patient and any communication barriers that may exist. It is very important for the patient to understand everything about their medications. This includes why they are taking them, what side effects they may cause, how long they need to be taken and whether the medicine can be taken in conjunction with other medicines or supplements, such as herbs. Not only Pharmacists, patients also play a critical role in ensuring medication safety. Being actively involved in their own care enables the sharing of key information among all providers and thus promotes enhanced medication and patient safety.

Biography

Palanisamy Sivanandy is an eminent academician and researcher has more than 20 years of experiences in the pharmacy field. He has completed his Ph.D., in the year 2013 from the prestigious Tamil Nadu Dr.MGR Medical University, Chennai and Good Clinical Practice Licensure Exam from Ministry of Health (MoH), Malaysia in 2014. He has published more than 60 research papers in various national and international indexed peer reviewed journals and has been serving as an editorial board member of repute for more than 10 international journals. His main areas of interest are Pharmacovigilance, Drug Safety Monitoring, Prescription Auditing, Clinical Research and Development, Clinical Trials and Patient Safety.

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Scenario of Glucose 6 phosphate dehydrogenase (G6PD) deficiency - From Malaysian perspective

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With an overall prevalence of four hundred million people across the globe, glucose 6 phosphate dehydrogenase deficiency is the commonest form of enzyme paucity in human beings. In the same regard, astonishingly, every one out of ten Malaysian child is G6PD deficient. Glucose 6 phosphate dehydrogenase is instrumental in rendering exact functioning of human blood cells. Moreover, it takes care of the blood cells if accidentally been exposed to unfavorable environment. From Malaysian perspective, this enzyme deficiency is the most evident in Orang Asli population, followed by Chinese community. Both Government and Non-Government health sectors across the nation avail the facilities to ascertain this deficiency, however, data regarding the prevalence of this disease is still below par. As G6PD deficiency is an inheritable disorder, molecular diagnostics and relevant research should be adhered more often than not along with the clinical assessment. In addition to that, associated diseases like cardiovascular malfunctioning, for example, must be taken into account as these are the potential modifiers of the G6PD gene. Not only this, tracing the possible mechanisms of pathogenesis of G6PD deficiency, cost effective techniques of sequencing the G6PD gene and evaluation of concentration of G6PD levels through the designing of enzyme kits are the possible challenges looming around. Therefore, we have to make a concerted effort to overcome these hurdles in the days to come with robust plans and perfect execution.

Keywords: G6PD, Malaysia, Orang Asli, pathogenesis

Biography:
Tapash Rudra is the associate Professor of faculty of Science, Department of Biotechnology, and Lincoln University College, Malaysia. He did his post-doctoral research from University of Calcutta, India. He has published more than 25 research articles in several reputed journals across the world, book chapters in the field of Biotechnology. In addition, he has been serving as the reviewer and editorial board member of the reputed journals.

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