Food intake and its Effect: A Gastroenterology Study in USA

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Abstract
Gastroenterology is the branch within Internal Medicine which focuses on ingestion, digestion, utilization, elimination of which we intake, digestive system, and its disorders. It includes all the organs involved in digestion starting from mouth, tongue, saliva, oesophagus, stomach, small and large intestine, side organs of liver, biliary and pancreatic systems, and finally ends up in the rectum for excretion. Gastroenterology mainly refers to the diseases affecting the gastrointestinal tract. A wide range of research on gastroenterology is carried out in USA particularly in Mayo Clinic, Cleveland Clinic, Johns Hopkins Hospital, Massachusetts General Hospital, UCLA Medical Center, UPMC Presbyterian Shadyside, Mount Sinai Hospital, Cedars-Sinai Medical Center. Studies at these institutes shows that most of the gastroenterology disorders such as constipation, diarrhoea, nausea and vomiting vary widely among the residents of USA. More than 15 million people in the United States have been reported to suffer from these disorders as per the recent census.

Keywords: Digestion; Gastroenterology; Digestive system; Hepatology; Peptic ulcer

Introduction
Academic journals provide an open platform for physicians, researcher and students regarding the information on the recent advances in the field of gastroenterology around the world. Open access journals deliver free up-to-date and authoritative coverage of all the field of gastroenterology. It publishes articles by leading authorities, latest researches on treatment for diseases by experts. Such healthcare journals play important role in educating the society and increasing awareness worldwide regarding its prevalence and optimal care of digestive disorders through the provision of high quality, accessible, and independent education and training.

Gastroenterology Associations in USA
The first official organization that focused on Gastroenterology was the American Gastroenterological Association (AGA) in 1897. AGA is a reliable source of the Gastroenterology community. AGA has now more than 16,000 members from all
around the world who are involved in all field relating to the diagnosis and treatment of Gastroenterology. World Gastroenterology organization (WGO) is another major society, having more than 1000 members working on Gastroenterology, Hepatology, Endoscopy, and other related disciplines and it represents more than 50,000 individuals worldwide. There are society’s worldwide workings towards the common goal of promoting and advancing excellence in Gastroenterology.

**Recent Research on Gastroenterology**

There are copious numbers of eminent experts in the field of Gastroenterology from USA. Trevor A Winter, director in the Division of Gastroenterology and Hepatology, Stanford School of Medicine, Stanford, California, USA. He is the editor in chief for the prestigious journal of Gastroenterology. He is the author of 62 papers, editorials, letters and reviews, 9 chapters, and 84 abstracts. He had presented on recent advances on short bowel syndrome in International Conference on Gastroenterology and Urology in USA [1-3]. Melissa Palmer is a senior Vice President of Clinical Research and Director of Hepatology at Kadmon Corporation. Dr. Palmer has performed trials of various experimental medications for the treatment of hepatitis and other liver diseases since 1983 and has been involved in various ways in the approval of every FDA approved drug for hepatitis and other liver diseases. One of her publication is Future Treatment of Hepatitis C: What will be the Fate of Ribavirin? This gives future perspective for treatment of hepatitis C [4]. David Bernstein is the author of numerous peer-reviewed articles and book chapters and a frequent guest lecturer both nationally and internationally. He is the chief of the digestive disease Institute and Director of Hepatology in the Division of Gastroenterology, Hepatology and Nutrition at North Shore University, USA. David E. Bernstein has conducted extensive research on the safety and efficacy of treatments for various types of chronic liver diseases such hepatitis B, hepatitis C and on coagulation disorders in liver disease. He is the author of many peer-reviewed articles and book chapters and a frequent guest lecturer both nationally and internationally. John Hart is a professor of Pathology and Gastroenterology in the University of Chicago. He is also the director of the gastrointestinal and hepatic pathology fellowship program. He has recently worked on comparative analyses of low, medium and high-resolution HLA typing technologies for human populations. These experts also serve as editorial board members of the journal on Gastroenterology.

Speakers from USA like Amy Oestreicher has recently taken a presentation on Healing after a gastrectomy: Bridging the body and mind after trauma with psychosomatic research in 8th International Conference on Clinical Gastroenterology and Hepatology held on October 03-05, 2016 at Toronto, Canada [5]. Yakira David has also presented on esophageal cancer in the same conference. Skillin C had briefed his work on Randomized clinical trial (RCT) of IFN-intolerant/ineligible (II) GT1 patients. Indran Indrakrishnan, a Clinical Professor of Medicine has given the recent update on proton Pump Inhibitors [6]. Aziz Aadam is specialized expertise in Gastrointestinal Oncology from USA. He has his recent presentation on EMR to ESD: East meets west, implementation of an Endoscopic submucosal dissection (ESD) program at an academic medical center [7]. Parminder Minhas and Inga Peter has taken the presentation on The Hidden Evil- GI bleed and small bowel obstruction caused by carcinoid tumor found during exploratory laparotomy and on Genetics of inflammatory bowel disease respectively at 7th Global Congress on Gastroenterology and Endoscopy held on September 12-14, 2016 at Atlanta, USA [8,9]. Novel IL-1 family cytokines: Role in gut inflammation had been briefed by Saleem Chowdhry [10]. Joshua Jackson has presented his work at major national conferences across the United States. His latest work on Screening vs. diagnostic colonoscopy: First time colon cancer screening in an inner city tertiary care hospital presented in 7th Global Congress on Gastroenterology and.
Endoscopy. She had published several continuing education booklets on Electrosurgery [11]. Kristie Briggs has provided many lectures to local/regional SGNA meetings around the country and also presented at the National SGNA [12].

Ashwani K Singal, Simon S Rabinowitz, Muhammad Jawad, Arti R Thakkar, Dinesh S Pashankar, Seungil Ro, Uma Padhye Phatak, Anthony F Porto, Aliza B Solomon, Guruvayoorappan C and Kannan N, Howard M Hack (not limited to) are the potential speakers from USA who took part in Global Congress on Gastroenterology and Endoscopy and presented their work on different topics related to Gastroenterology like gastrointestinal disorders, celiac disease, inflammatory bowel disease, ulcerative colitis, abdominal pain, etc. [13-23].

There are meticulous researches are going on in USA. Study has been carried out on linear and non-linear quantitative structure retention relationships (QSRR) models for analysis of 5-aminosalicylates nanoparticles as digestive system nano drugs under synchrotron radiations by Heidari [24]. New preparation HyGleaCare® is a novel alternative to oral purgative laxatives traditionally prescribed prior to colonoscopy for proper imagining of the colon. Research study found to assess the diagnostic accuracy of the tissue transglutaminase antibody (tTG-Ab) for celiac disease (CD) in paediatric patients by avoiding duodenal biopsy. Experiment on resection of pancreas and duodenum during radical nephrectomy from which patients may benefit from aggressive surgical interventions [25-31]. A novel therapy option in the treatment of lymphocytic colitis, Budesonide MMX due to its formulation and colonic delivery design which allows the high rates of colonic penetration with minimal systemic absorption. Study on prevalence and associated risk factors of Helicobacter pylori negative gastritis. This study provides inferences for screening of population with Hp-negative gastritis. Even they are doing research to improve their current process and easy retrieval of research data. Novel mobile device application (MDA) is one of them. The MDA may be a useful tool for recording and retrieving endoscopic procedure logs in a standard fashion [32-42].

Review literatures on fatty liver and liver cirrhosis, melanosis coli associated with gastric heterotopia of the anorectum as well as a shift in gastric mucosal type on repeat biopsy, endoscopic management of pancreatic pseudo cyst causing obstructive jaundice has been gaining more popularity, a multidisciplinary management algorithm of acute gastrointestinal bleeding which may serve as an useful work to establish similar protocols [43-51].

Case reports on Fitz-Hugh-Curtis Syndrome, melanosis “Coli”, angiotensin converting enzyme (ACE) inhibitor, transjugular liver biopsy, acute myopericarditis, overlap syndrome (Systemic Sclerosis and Rheumatoid Arthritis) with achalasia, malignant gastric outlet obstruction, renal cell carcinoma invading duodenum, colonic splenic flexure, gi mucosal injury and bleeding, hepatocellular carcinoma as spinal cord compression, sigmoid perforation during CT colonography, etc. have been recently published [52-60].

Peptic ulcer is one of the major types of Gastroenterological disorder worldwide. It is a known fact that peptic ulcers are generally caused by H. Pylori. A group of researchers from University of Texas Medical Branch have discovered specific physiological free amino acids as biomarkers for H. pylori associated with peptic ulcer [61-65]. H. pylori are not only the cause of peptic ulcer but it is also known to cause irritable bowel syndrome (IBS) [66]. Chronotherapic combined regimen therapy (CRT) of Allopathic (PPIs) and Ayurvedic (Aloe vera) medicine has shown significant improvement in the patients with peptic ulcer [67].
Gastro-intestinal (GI) cancer is a growing epidemic worldwide as per the literature published by peer reviewed journals in Gastroenterology. Personal medical history and lifestyle factors play a major role in a person developing GI cancer. Adjuvant systemic chemotherapy with either 5-FU/FA or gemcitabine and then followed by a curative resection for pancreatic adenocarcinoma shows significant improvement in patients [68]. Awareness should be created among the population worldwide regarding the growing incidences of GI Cancers. These cancers show fewer symptoms when compared to other cancerous cell. General symptoms include abdominal pain, vomiting, constipation or diarrhea, weakness or fatigue which are generally neglected (or) misdiagnosed as some other common digestive problems [69-72].

Celiac disease is a severe genetic autoimmune disorder; the ingestion of gluten by these individuals leads to damage in the small intestine. In a case report by Dr. El Gamrani, a rare association of the celiac disease has been found with ulcerative colitis. Another study carried out by Dr. Velmishi shows association with pericardial effusion [73-80].

Gastroenterologists at various conferences have delivered an excellent and novel ways of treatment, diagnosis and detailed understanding of the normal physiology of all the organs of digestive system, as well as movement through the intestines and gastrointestinal tract [81-84]. Understanding a digestive system is required to maintain a healthy digestion, proper absorption of nutrients and removal of waste through metabolic processes. The gastroenterologists also need to have a clear knowledge of ailments affecting the organs of the gastrointestinal system [85-94]. It includes peptic ulcer disease, oesophageal cancers, gastric cancers, achalasia, colon polyps, colon and bowel cancers, Barret’s oesophagus, pancreatitis, pancreatic cancers, cholecystitis, gallbladder stones and cancer, gastroesophageal reflux, colitis, nutritional problems and malabsorption, hepatitis, biliary tract disease, irritable bowel syndrome (IBS) a host of other disease conditions [95-107].

It can be drawn to a conclusion that digestive system problems are mainly linked to improper diet [108-115], stress [116], food intolerance or allergy [117-120], sedentary lifestyle [121], medications [122] or simply a change in routine food intake [123-130].

**Conclusion**

While reviewing the rich history of Gastroenterology, it is evident that USA had contributed profoundly in forming the history of the Gastroenterology and witnessed the emerging new field. The first formal organization on Gastroenterology and the first World Congress of Gastroenterology were held in USA. Scientist and researchers from the field of Gastroenterology are working towards the innovative researches. Their presence and involvement in Global Congress and conferences on Gastroenterology and Endoscopy is the noteworthy indication of their valuable contribution in the field of Gastroenterology.

A wide range of drugs available to treat disorders related to digestive system. Such as antibiotics, antiemetic, anti-diarrhoeals, anti-flatulents, laxatives, drugs for acid-related disorders, etc. Recently FDA has approved drugs like Xifaxan (Rifaximin), Viberzi (Eluxadoline), Avycaz (Ceftazidime-avibactam), Cholbam (cholic acid), Lonsurf (Trifluridine and tipiracil), etc. Most recently in October 2016, FDA has given approval to Zinplava (Bezlotoxumab) for the treatment of recurrent *Clostridium difficile* infection in patients receiving antibacterial treatment. In near future, we may expect more detailed researches, conferences and articles in the wide spectrum of Gastroenterology.
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