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EDITORIAL

Editorial commentary on the Indian Journal of Gastroenterology May-June 2020

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"*Learn from yesterday, live for today and hope for tomorrow. And never stop questioning.*"
-Albert Einstein

The emergence of the Severe Acute Respiratory Syndrome Corona Virus-2 (SARS-COV 2) from Wuhan, China in December 2019 and the resulting Corona Virus Disease (COVID-19) has gripped the world in a global pandemic from its unprecedented spread, changing our perceptions and paradigms around disease and the world, as we have known it. As of 11 July 2020, there have been 12,322,395 confirmed cases of COVID-19, including 556,335 deaths, reported to WHO [1] with 22,123 deaths in India [2]. Even as the world remains under the influence of this cataclysmic crisis, the medical and scientific communities have continued to work tirelessly and collaboratively to find answers for this hitherto unknown disease. Although a predominantly respiratory disease with multi-systemic ramifications, gastrointestinal (GI) symptoms such as diarrhea, vomiting, abdominal pain and hepatic abnormalities have been reported in up to 20% of patients with COVID-19, including those with minimal symptoms [3, 4]. The potential for SARS-COV2 to affect the GI tract and implications to patients with underlying GI and liver disease are of particular relevance to gastroenterologists. With this in mind, this issue focusses on COVID-19 with a series of research articles and clinical reviews on COVID-19 and GI disease, constituting essential and timely reading for the practising gastroenterologist. We hope you find these useful. And we wish you and your patients well…

Voluntary perioperative colorectal cancer registry from Kerala – an initial overview

Colorectal cancer (CRC) ranks among the six most common malignancies in India; yet, outcomes data outside of selected centers are lacking [5]. Krishnan and colleagues report the first outcomes data from 1018 CRC cases from 15/25 participating centers of the Association of Surgical Gastroenterologists of Kerala CRC registry between 2016 and 2018 [6]. The majority of CRC cases were rectal (39.88%) and rectosigmoid (20.33%), with minimally invasive surgery (MIS) performed in 73% cases and 56.74% of colonic malignancies. MIS was associated with reduced length of hospital-stay compared to the open approach (10.46 ± 5.08 vs. 12.26 ± 6.03 days; p=0.001and 10.29 ± 4.58 vs. 12.46 ± 6.014 days; p=<0.001), with an overall 2.16% mortality. The data are limited by selection bias from voluntary participation but underpin the need for wider adoption, identifying outcome modifiers, and providing much-needed transparency for physicians, patients, and stakeholders in driving excellence in the overall delivery of care.

Platelet to lymphocyte ratio as a predictive biomarker of liver fibrosis (on elastography) in patients with hepatitis C virus (HCV) -related liver disease

Chronic hepatitis C with antecedent complications from cirrhosis is a major source of morbidity and mortality globally. Assessment of liver fibrosis is key to critical decisions with anti-viral therapy [7]. Liver biopsy remains the standard criterion for the histological evaluation although non-invasive assessment (transient elastography) is preferred for the serial evaluation but limited by cost and availability [7]. There is a resurgent interest in platelet to lymphocyte (PLR) and neutrophil to lymphocyte ratios (NLR) in predicting liver fibrosis beyond an assessment of inflammatory activity.

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Catanzaro and colleagues studied treatment-naive patients with chronic HCV, who underwent clinical and laboratory assessments and transient elastography and were classified into Metavir F0-F4 [8]. Patients with F4 fibrosis (cirrhosis) had a lower PLR than the non-F4 group. Patients with PLR>89 demonstrated an increased risk of F4 fibrosis. No differences were noted in NLR values for both groups. Further studies in well-characterized cohorts incorporating liver biopsy are now needed to validate these findings.

Decreasing major surgical rates for Crohn's disease in an emerging economy over two decades but is it due to biologic therapy?

Biological therapies have re-defined our perceptions around meaningful disease control. "Treating to target" to achieve mucosal healing and deep remission early in the course of the disease may limit intestinal injury and ensuing disability [9]. Have biological therapies influenced a reduction in surgical resection rates?

Chuah and colleagues conducted a retrospective study across two tertiary centers in Malaysia and compared surgical resection rates in Crohn's disease (CD) patients in the pre-biologic (cohort 1; 1991-2000) and immediate post-biologic era (cohort 2; 2001-2010) [10]. There was a significant reduction in the 7-year cumulative intestinal surgical rates between cohorts 1 and 2, from 21.4% to 10.2% (p=0.028), but there was no statistically significant difference in biologic exposure between those who underwent surgery and those who did not. A small sample size, variable disease duration, and timing of biologics may have influenced results. Long-term prospective studies with early use of optimized biological treatment are urgently needed [11].

Gastrointestinal and hepatic manifestations of COVID-19 and their relationship to severe clinical course: A systematic review and meta-analysis

Although predominantly a respiratory disease, GI manifestations are observed in COVID-19 [3]. Kumar and colleagues performed a systematic review and meta-analysis of 62 studies, to study the frequency of GI and hepatic manifestations and determine whether GI or hepatic manifestations are associated with a severe clinical course with COVID-19 [12]. Diarrhea was the most common GI symptom (9%), followed by nausea/vomiting (5%), abdominal pain (4%), and chronic liver disease in 3% of patients.

A severe clinical course was seen in 20% with age ≥ 60 years and underlying chronic comorbidity, but not chronic liver disease strongly associated with a severe clinical course. Presence of diarrhea, high aspartate aminotransferase (AST), alanine aminotransferase (ALT), and bilirubin (odds ratio, [OR] 2), high prothrombin time (PT) (OR 4) and low albumin (OR 5) were associated with a severe clinical course. Patients with underlying GI disorders may be particularly vulnerable, and these findings and rapidly evolving evidence will influence our paradigms around COVID-19 and GI and liver disease.

Poor outcomes in patients with cirrhosis and COVID-19

The association between SARS-COV 2 infection and high mortality rates in people with cardiovascular and metabolic co-morbidities is well-recognized. Data on outcomes of SARS-COV 2 infection with chronic liver disease are scarce. Shalimar and colleagues from All India Institute of Medical Sciences (AIIMS), New Delhi report outcomes data from 28 patients with SARS-COV 2 infection and underlying chronic liver disease compared to age, sex, and severity-matched cirrhotic controls [13]. Twenty-six of 28 patients had cirrhosis, and one each had non-alcoholic fatty liver disease and extra-hepatic portal venous obstruction. Mortality was numerically higher in COVID-19 (42.3% vs. 23.1%, p=0.077) and 100% among COVID-19 patients with acute-on-chronic liver failure, compared to 53.3% among controls (p=0.015). Over 50% of patients had pneumonia, and on multivariate analysis, mechanical ventilation was independently associated with mortality (hazard ratio [HR] 13.680, [p=0.025]). These outcomes are similar to data from larger cohorts (SECURE-CIRRHOSIS registry) [14], which also reported 33% mortality in COVID-19 patients with cirrhosis affirming our suspicions that patients with cirrhosis contracting SARS-COV 2 have poor outcomes.

Compliance with Ethical Standards

Conflict of Interest JKL declares that he has no conflict of interest.

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