Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

OC.06.5

GATA6 DEFICIENCY LEADS TO EPITHELIAL BARRIER DYSFUNCTION AND ENHANCES SUSCEPTIBILITY TO GUT INFLAMMATION

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Background and aim: The GATA-binding factor 6 (GATA6) is a zinc-finger DNA binding transcription factor involved in the differentiation and proliferation of mature intestinal epithelial cells. As intestinal epithelial barrier impairment is a hallmark of inflammatory bowel disease (IBD), we investigated the expression and functional role of GATA6 in IBD.
Materials and methods: GATA6 expression was evaluated in mucosal samples of IBD patients and controls by real-time PCR and immunohistochemistry at steady state and after stimulation with the inflammatory cytokines TNF-α, IL-6 and IFN-γ. Gata6 conditional deletion in murine intestinal epithelial cells (Gata6del) was obtained by multiple injections of tamoxifen. After 4 weeks, Gata6del mice were sacrificed and intestinal damage and inflammatory cell infiltration evaluated by histological analysis and flow cytometry. Intestinal barrier integrity was assessed by FITC-dextran assay and immunofluorescence. In parallel, some mice were injected with indomethacin to induce ileitis and sacrificed after 1 day, while others received trinitrobenzene sulfonic acid to induce colitis and sacrificed at day 3. To deplete gut microbiota, Gata6del mice were exposed to antibiotics for 2 weeks.
Results: GATA6 expression is decreased in the intestinal epithelium of IBD patients. TNF-α reduces GATA6 protein level in normal intestinal epithelial cells, while a TNF-α blocker up-regulates GATA6 in the IBD epithelium. Selective deletion of GATA6 in the murine intestinal epithelium induces primarily epithelial damage, altered Zonulin-1 expression and increased intestinal permeability, thus promoting bacteria-driven local, but not systemic, immune response with the down-stream effect of enhancing susceptibility to gut inflammation.
Conclusions: In conclusion, our data show that human IBD is marked by defective epithelial expression of GATA6 and selective loss of GATA6 in murine intestinal epithelium leads to altered barrier function, which promotes bacteria-driven local immune response and amplified gut inflammation.

OC.06.6

COMPARATIVE ASSESSMENT C-REACTIVE PROTEIN BETWEEN A POINT-OF-CARE TESTING AND CURRENT STANDARD OF CARE (IMMUNONEPHELOMETRIC TESTING)

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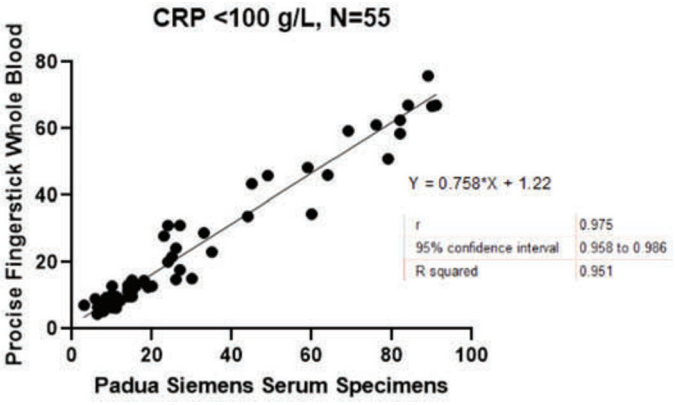
Background and aim: C-reactive protein (CRP) is widely used as a biomarker of inflammatory disease activity in hospitalized and non-hospitalized patients, in order to drive the diagnostic approach, to monitor disease activity and to guide therapeutic adjustments. Standard laboratory CRP testing (Immunonephelometric assays) present some drawbacks, including a turnaround time of 1-2 hours, and the need of specialized equipment, offices and laboratory personnel. Point-of care testing (POCT) was recently developed in order to provide results within 2 minutes from blood collection, enabling a rapid response to clinical condition. The aim of the present study was to determine the degree of analytical correlation between a recently developed POCT (ProciseDx) using capillary whole blood and the comparative Immunonephelometric assay using serum samples.
Materials and methods: From October to November 2020, consecutive patients hospitalized at Gastroenterology Unit, Padua University Hospital, aged >18 years, with clinical evidence of active inflammatory disease or infection, who underwent to a standard of care CRP test (Dimension Vista) were included in the study (range 2.9-340 g/L). Within 1 hour from blood collection, in each patient, CRP quantitation from capillary whole blood collected by finger stick was performed using the ProciseDx CRP assay, with reportable range between 3.6-100 g/L. A Deming regression test was used to identify the correlation between the two methods.
Results: Eighty-three patients were enrolled (62.5% males; mean age ± SD: 60±18). The most common indications for hospitalisation were liver disease (34.9%), pancreatic disturbance (27.7%) and suspicious or recurrence of IBD (16.7%). ProciseDx POCT with finger prick samples required a turnaround time of 2±0.2 minutes, whereas serum samples analyzed in clinical laboratory with the reference method required a turnaround time of about 180±15 minutes ($p<0.001$). The correlation between the two tests was high (R squared of 0.899 (95% CI 0.916-0.968)). In particular, the correlation between the methods was even higher with CRP values between 0-100 g/L with R squared of 0.951 (95% CI 0.958-0.986).



Conclusions: The ProciseDx POCT allows a more rapid and comparable accuracy of CRP assessment in hospitalized patients as compared to the standard laboratory measurement and does not require specialised personnel to be performed. The use of ProciseDx POCT may improve and accelerate the decision-making approach, further reducing the resources required for CRP assessment.

OC.06.7

LOWER INCIDENCE OF COVID-19 IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE TREATED WITH NON-GUT SELECTIVE BIOLOGIC THERAPY

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Background and aim: Since the outbreak of COVID-19, concerns have been raised as to whether IBD patients under biologic therapy might be more susceptible to the disease and its complications. This study aimed to determine the incidence and outcomes of COVID-19 in a large cohort of IBD patients on biologic therapy in Lombardy, the hardest-hit Italian region by the pandemic.
Materials and methods: This is an observational retrospective multicentre study collecting data about COVID-19 in IBD patients on biologic therapy in regular clinical follow-up at 11 IBD referral units

in Lombardy, between February 20th and May 20th, 2020. The main endpoints were to assess the cumulative incidence of COVID-19 and its outcome (hospitalization/death) among IBD patients on biologic therapy and to identify any variations among the different classes of biologic agents. Secondarily, we compared the results with the incidence of COVID-19 in the general population of Lombardy in the same period and the incidence of symptoms suggestive of COVID-19 in our study population compared with those of a second cohort of IBD patients undergoing non-biological therapies and coming from the same geographic area.

Results: Overall, 1816 IBD patients on biologic therapy were enrolled. The cumulative incidence of COVID-19 was 3.9 per 1000 (7/1816) with a hospitalization rate of 57% and a case-fatality rate (CFR) of 29%. In our Cohort, the gut-selective therapy (Vedolizumab and Etrolizumab) was the only risk factor of developing symptomatic COVID-19 (OR 8.7, 95% CI 1.7-45.0, p=0.01). Conversely, non-gut selective anti-cytokine agents were associated with a lower incidence of infection (OR 0.13, 95% CI 0.02-0.74) and development of symptoms (OR 0.60, 95% CI 0.37-0.98). Compared to the general population of Lombardy, a lower incidence of COVID-19 was observed (3.9 vs 8.5 per 1000 with a RR 0.45, 95% CI 0.21-0.95); conversely, in terms of hospitalization rate and CFR, the clinical outcome was not statistically different. Finally, compared to a second cohort of 565 IBD patients treated with non-biologic conventional therapies, a significantly lower risk of symptomatic disease was observed in patients on biologic agents (OR 0.3, 95% CI 0.2-0.4, p<0.01).

Conclusions: Compared to the general population, IBD patients on biologic therapy are not exposed to a higher risk of COVID-19; compared to gut-selective agents, cytokine blockers are associated with a lower incidence of symptomatic infection, supporting the decision of maintaining the ongoing treatment.

OC.06.8

THE EMERGING ROLE OF TELEMEDICINE IN GASTROENTEROLOGY DURING THE COVID-19 PANDEMIC: A STUDY ON ITS FEASIBILITY AND PATIENTS' TRUST

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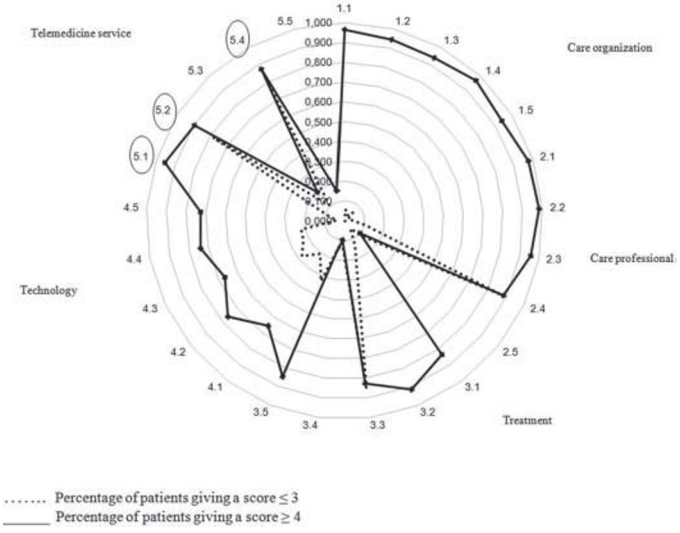
Background and aim: During the on-going COVID-19 pandemic telemedicine has enabled many patients with chronic diseases worldwide to get access to remote assistance. Telemedicine has emerged as the ideal solution to overcome the restrictions in place on performing regular non-urgent follow-up visits for chronic patients and continuing patients' assistance. Some positive reports on the use of telemedicine in gastroenterology among healthcare providers and patients have been published, but a patient's trust perspective about televisits has so far been unavailable. Our study aimed at ascertaining telemedicine feasibility and gastroenterological patients' trust in televisits during the COVID-19 pandemic.

Materials and methods: At our Gastroenterology Unit in Milan (Italy), which is a tertiary referral center for Inflammatory Bowel Diseases (IBD) and Celiac Disease (CeD), telemedicine was used in place of on-site follow-up visits scheduled but not provided during the COVID-19 pandemic. All IBD and CeD outpatients were contacted by phone and televisits were arranged for patients with mild-to-moderate symptoms, with bio-umoral alterations or as needed for those who requested it. The patients' trust in telemedicine was assessed through an adapted version of the PAtient Trust Assessment Tool (PATAT) questionnaire. The primary endpoint was expressed patient's trust as assessed through the questionnaire. The secondary endpoint was feasibility and acceptance of televisits.

Results: A total 188 out of 218 scheduled (86.2%) televisits were performed and among these a total of 163 (86.7%) questionnaires compiled was accomplished. The primary endpoint of trust in the telemedicine service was achieved in 95.2%, 89.7% and 87.3% of the respondents for the three selected key statements about trust in the telemedicine service, its capability to solve clinical problems and ease to use, respectively.



Conclusions: Our results showed that during the COVID-19 pandemic televisits were feasible for most of our patients with chronic gastroenterological diseases, and that most patients accepted and trusted televisits as an alternative to the traditional in-person examination.

OC.06.9

ASSESSMENT OF SARCOPENIA AND NUTRITIONAL STATUS IN A COHORT OF PATIENTS WITH CROHN'S DISEASE

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Background and aim: Altered body composition may negatively impact on the clinical outcome and quality of life of patients with IBD. Sarcopenia, defined as a progressive loss of skeletal muscle mass and function, is commonly observed in patients with IBD and can be reliably assessed by computed tomography (CT) which allows accurate and reproducibile quantification of both abdominal adipose tissues (subcutaneous and visceral), as well as skeletal muscles. We aimed to assess the prevalence of sarcopenia in Crohn's disease (CD) patients undergoing contrast-enhanced CT(CECT). We further investigated the associations of sarcopenia with visceral fat parameters, disease severity and surgery

Materials and methods: 40 CD patients (22F, aged 44±16 yrs; BMI 20.8±3.7) who underwent CECT for clinical assessment were retrospectively enrolled. CECT was performed using a 64-rows multi-detector equipment after i.v. injection of non ionic iodinated contrast media with a tailored scan delay. Demographic and clinical data were collected at the date of abdominal CT. Clinical outcome included the rate of surgery within one year. The skeletal muscle index (SMI) at the level of third lumbar vertebra was used to assess sarcopenia defined as a SMI<38.5 cm^2/m^2 in women and <42 cm^2/m^2 in