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.

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Correspondence

Noninvasive monitoring of inflammatory bowel disease in the post COVID-19 era ☆

Dear Editor,

The management of inflammatory bowel disease (IBD) has been revolutionized in the Covid-19 era leading to substantial changes even in the post Covid-19 phase. The interruption of all non-essential endoscopic procedures and outpatient visits could impact on the assessment of disease activity by increasing the risk of relapse, disease complications, delay of new IBD diagnosis and detection of early post-operative recurrence of Crohn's disease (CD).

Hence a "treat-to target approach", based on a tight control of the disease with close monitoring through objective interval assessments and optimization of the treatment till the targets are not reached, will not be adopted immediately as in the pre Covid-19 era [1].

The key question is whether alternative non-invasive tools can replace endoscopy, particularly for the monitoring of IBD patients in the post Covid-19 pandemic.

Balancing risk and benefits should guide every clinical decision in the post Covid-19 era, bearing in mind any potential consequences of taken actions. The number of daily endoscopic examinations cannot return instantly to the ordinary activity. Non-emergency clinics and endoscopy for patients with IBD should take a careful and gradual approach in increasing the number of procedures. Regular activities should be resumed only once the safety of patients and staff from potential infection risk is ensured.

Therefore, we believe that in the post Covid-19 era noninvasive monitoring will be crucial for the application of treat-to target strategy. Two diagnostic tools, widely adopted in the clinical practice for IBD, might play a key role.

The first one could be faecal calprotectin (FC). In the last few years FC has been included into the treat-to target paradigm to manage IBD patients. Notably, the results of a global telemedicine survey by the international organization for the study of IBD showed that most participants (89.0%) had routine access to laboratory FC testing before the pandemic. Following the Covid-19, 33.7% reported a decrease and 12.3% a complete suspension of this service since the virus may be shed in stool [2]. Home testing option even using finger-prick sampling should be promoted in the post Covid-19 era instead of laboratory testing as laboratory services may be overwhelmed. However, most IBD centres are not yet organized to provide assistance to this service. In addition, a low adherence of patients to self-monitoring disease activity using a combination of a rapid FC home test and a symptom's questionnaire has been reported in a previous study [3].

The second diagnostic tool could be bowel ultrasonography (US), that is able to assess the disease presence, the activity of inflammation and both transmural and extramural disease complications such as abscesses or fistulas in CD. Notably, bowel US is a noninvasive, inexpensive, and easy-to-repeat technique. Accumulating studies have shown that it is accurate and sensitive for diagnosis of suspected CD and for evaluation of disease activity, with high concordance with magnetic resonance enterography (MRE) for detecting small bowel disease presence and extension [4,5]. Furthermore, compared with ileocolonoscopy and MRE, bowel US has been shown to be very accurate in assessing and monitoring disease activity in CD and thus can be considered a point-of-care test [6]. Recent data showed that even in ulcerative colitis (UC) patients bowel US can monitor disease courses and assess short-term treatment response [7].

Accordingly, in the treat-to target era, bowel US represents an objective tool to assess the response to the therapy and thereby to adjust treatment [8]. Importantly, the achievement of transmural healing in CD determined by bowel US is associated with better long-term clinical outcomes than endoscopic mucosal healing [9].

With regards to post-operative recurrence of CD, current guidelines recommend performance of a colonoscopy within 6 to 12 months after an ileocolonic resection to establish therapeutic management based on endoscopic assessment [10]. We suggest that in order to prevent any possible complications related to postponing the detection of early recurrence of CD at ileocolonoscopy, bowel US may be an alternative and reliable tool in the post-Covid-19 era to assess early post-operative recurrence and establish a therapeutic strategy.

Thus, the implementation of noninvasive techniques to replace not urgent or necessary endoscopy in the post Covid-19 period can prevent the diagnostic delay and identify early post-operative recurrences that can benefit from therapy. The assessment of FC levels can offer significant advantages in clinical practice for monitoring disease activity, response to therapy, and predicting relapse in post-operative recurrence of CD. Bowel US is safe and reliable; patients spend less time at the hospital and can attend hospital alone (while for colonoscopy with sedation a caregiver is needed to take the patient home).

In conclusion we believe that the management of IBD in the post Covid-19 era has evolved towards alternative noninvasive ways of stratifying, monitoring and detection of relapse in IBD patients. The combination of these non-invasive tools increases the accuracy in determining disease activity and improve early intervention and recognition of flares to achieve tight control of disease.

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Declaration of Competing Interest

None of the other authors have any conflict of interest to declare

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