

## LETTER TO THE EDITOR

**A snapshot of urgent upper gastrointestinal endoscopy care during the COVID-19 outbreak in Italy***To the Editor,*

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has rapidly become epidemic in Italy.<sup>1</sup> On March 9, 2020, the lockdown was officially declared by Italian Government and the Phase 1 has started. During this phase, our region (Lazio) was not involved in the severe spreading of coronavirus disease-19 (COVID-19) as in the Northern Italian regions. Despite that, one measure adopted in hospital setting was a progressive re-organization in “COVID-19 dedicated” hospitals and “COVID-19 free” hospitals.<sup>2,3</sup>

During the entire COVID-19 pandemic, medical attention was focused on treating affected patients, protecting the population from infection and reorganizing daily hospital routine upon resumption as described by Lui RN Wong SH *et al.*<sup>4</sup>

According to recent evidences, even a few months delay in the diagnosis of cancer and up to 6 months delay in performing a colonoscopy after a positive fecal immunochemical test (FIT) may not lead to a worse clinical outcome.<sup>5</sup>

However, postponing less urgent procedures may lead to collateral damage for patients in need for an urgent procedure. For many interventions, the line between urgent and non-urgent can be drawn only retrospectively. That's especially true for urgent upper endoscopy, but no data are still available until now.

Our hospital was selected by regional committee as “COVID-19 free,” and our endoscopic daily activity continued according to local indications (emergency, inpatients, and high priority outpatients).

Using the database of our Emergency Digestive Endoscopy Unit, we compared urgent procedures of upper gastrointestinal endoscopy performed during the Phase 1 period (since March 9–May 4, 2020) (lockdown group) with those performed in the same time window in 2019 (control group).

The number of patients admitted for urgent upper endoscopy dropped 50% in the lockdown period compared with the control group: 17 patients were enrolled in the lockdown period (13 male and 4 female) *versus* 35 patients in the control group (17 male and 18 female). Mean age of patients was significantly lower ( $58 \pm 19$  years in the lockdown group *vs*  $63 \pm 18.8$  years in the control group,  $P < 0.001$ ). Patients in the lockdown group have been admitted for hematemesis, melena, and foreign body ingestion more often than the control group.

Moreover, in the lockdown group, a higher incidence of severe endoscopic findings has been detected, including gastroduodenal ulcers, food bolus, Dieulafoy lesions, or bleeding angiodysplasia ( $P = 0.008$ ). In comparison with the lockdown group, the reasons of admission to the emergency room were less relevant in the control group (occult anemia, dysphagia, heartburn or chest pain, and CT thickening). Confirming these observations, mild or absent endoscopic findings were more often described in the control group than in the lockdown group.

Focusing on clinical characteristics of patients with upper gastrointestinal bleedings the mean range of hemoglobin level was lower in lockdown group ( $6.5 \pm 2$  *vs*  $9.9 \pm 2.5$ ,  $P < 0.001$ ). Patients in the lockdown group also had significantly higher need for blood transfusions ( $P = 0.06$ ). No statistical significant difference has been observed between these two groups with respect to NSAID abuse or antithrombotic agent therapy.

Furthermore, the average time between the onset of evident bleeding symptoms and hospital admission was significantly longer in lockdown group patients ( $6.5 \pm 1.6$  *vs*  $1.7 \pm 0.6$ ,  $P < 0.001$ ).

Taking into account the most severe endoscopic bleeding stigmata (*Forrest Ia* or *Ib*), these have been observed more often in

**Table 1** Focus on upper gastrointestinal bleeding


	Lockdown group (n = 13) (76%)	Control group (n = 24) (69%)	
NSAID abuse, n (%)	3 (23)	5 (21)	0.7700
Antithrombotic treatments, n (%)	4 (30)	6 (25)	0.7
Onset evident bleeding (mean days)	$6.5 \pm 1.6$ (range 1–10)	$1.7 \pm 0.6$ (range 1–3)	0.0001
Hemoglobin at admission (g/dL)	$6.5 \pm 2$ (range 3–12)	$9.9 \pm 2.5$ (range 5–14)	0.0010
Need of Blood transfusion, n (%)	13 (77)	23 (17)	0.0010
Severity of bleeding endoscopic stigmata (Forrest classification)	Total (n = 10/13)	Total (n = 11/24)	0.04
III Clean-based ulcer	3 (30)	7 (64)	
IIc Flat pigmented hematinic	2 (20)	0	
IIb Adherent clot	0	3 (27)	
IIa Non-bleeding visible vessel	3 (30)	0	
Ib Active oozing	2 (20)	1 (9)	
Ia Active spurter	0	0	
Endoscopic treatment	5 (50)	4 (36)	0.52
<i>H. pylori</i> detection, n (%)	6 (46)	7 (29)	0.3

the lockdown group than in the control group, although without statistical significance ( $P = 0.04$ ).

Half of the patients in the lockdown group required an endoscopic treatment *versus* one third of the patients requiring endoscopic treatment in the control group (Table 1). In all the cases, the procedure was effective.

The endoscopic treatment was realized by using a combined approach, metallic clips with epinephrine, hemospray, or metallic clips alone. Regarding *Helicobacter pylori* infection, no statistical significant difference has been found between the two groups.

All the endoscopic procedures were performed safely during the lockdown period. The entire medical staff has been randomly tested by oropharyngeal swabs to detect SARS-CoV-2 and resulted negative. Serological testing will be performed in the next month to confirm these data.

V D'Ovidio,  C Lucidi, G Bruno, L Miglioresi, D Lisi  
and ME Bazuro

GI Endoscopy Unit, S. Eugenio Hospital Rome, Italy

## References

- 1 Comunicati stampa Protezione Civile - 09/3/2020. Dipartimento della Protezione Civile Im Internet: <http://www.protezionecivile.gov.it/media-comunicazione/comunicati-stampa>
- 2 Distante C, Piscitelli P, Miani A. Covid-19 Outbreak Progression in Italian Regions: Approaching the Peak by the End of March in Northern Italy and First Week of April in Southern Italy. *Int. J. Environ. Res. Public Health* 2020 Apr 27; **17**: pii: E3025. <https://doi.org/10.3390/ijerph17093025>
- 3 Remuzzi A, Remuzzi G. COVID-19 and Italy: what next? *Lancet* 2020;**395**: 1225–8. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30627-9/abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30627-9/abstract)
- 4 Lui RN, Wong SH, Sánchez-Luna SA *et al.* Overview of guidance for endoscopy during the coronavirus disease 2019 pandemic. *J. Gastroenterol. Hepatol.* 2020 May; **35**: 749–59. <https://doi.org/10.1111/jgh.15053> Epub 2020 Apr 22.
- 5 Amato A, Rondonotti E, Radaelli F. Lay-off of Endoscopy services for the COVID-19 pandemic: how can we resume the practice of routine cases. *Gastroenterology* April 2020;<https://doi.org/10.1053/j.gastro.2020.04.049>