ORGANOPATIA DA COVID-19
DIAGNOSI, TERAPIA E FOLLOW UP

MARTEDÌ 22 DICEMBRE

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Gastroenteropatie nei pazienti con SARS-Cov-2

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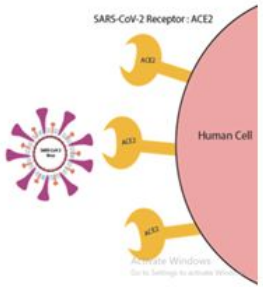
Prevalence of Gastrointestinal Symptoms and Fecal Viral Shedding in Patients With Coronavirus Disease 2019. A Systematic Review and Meta-analysis

Parasa S, JAMA Netw Open 2020 (6): e2011335

Meta-analysis of 29 observational studies (China):

		Pooled prevalence (95% CI)	
Diarrhea	21 studies, 4.393 patients	7.4%	(4.3-12.2)
Nausea/ Vomiting	12 studies, 4.005 patients	4.6%	(2.6-8.0)
SARS-Cov-2 fecal shedding	8 studies, 407 patients	40.5%	(27.4-55.1)
AST/ ALT elevation	8 studies, 1.450 patients	20.1%	(15.3-25.6)



COVID-19-associated gastrointestinal and liver injury: clinical features and potential mechanisms

Zhong P et al. Signal Transduction and Targeted Therapy 2020 5:256

Reference	Study country	Time of patients' enrollment	Number of patients	Diarrhea	Nausea	Vomiting	Lack of appetite
Argenziano et al.[28]	USA	March 1–April 5, 2020	1000	236 (23.6%)	178 (17.8%)[b]	178 (17.8%)[b]	NA
Suleyman et al.[27]	USA	March 9–March 27, 2020	463	100 (21.7%)	94 (20.4%)	53 (11.5%)	100 (21.7%)
Redd et al.[23]	USA	Before April 2, 2020	318	107 (33.7%)	84 (26.4%)	49 (15.4%)	110 (34.8%)

Luo et al.[18]	China	January 1–February 20, 2020	1141	68 (6.0%)	134 (11.7%)	119 (10.4%)	180 (15.8%)
Wang et al.[14]	China	January 1–28, 2020	138	14 (10.1%)	14 (10.1%)	5 (3.6%)	55 (39.9%)
Zhang et al.[26]	China	January 16–February 3, 2020	139	18 (12.9%)	24 (17.3%)	7 (5.0%)	17 (12.2%)
Mao et al.[22]	China	January 16–February 19, 2020	214	41 (19.2%)	NA	NA	68 (31.8%)
Yang et al.[17]	China	January 17–February 10, 2020	149	11 (7.4%)	2 (1.3%)	2 (1.3%)	NA
Lin et al.[20]	China	January 17–February 15, 2020	95	23 (24.2%)	17 (17.9%)	4 (4.2%)	17 (17.9%)
Pan et al.[15]	China	January 18–February 28, 2020	204	35 (34.0%)	NA	4 (3.9%)	81 (78.6%)
Wan et al.[16]	China	January 19–March 6, 2020	232	49 (21.1%)	NA	NA	NA
Lu et al.[25]	China	January 28–February 26, 2020	171	15 (8.8%)	NA	11 (6.4%)	NA
Zheng et al.[21]	China	February 5–March 9, 2020	1320	107 (8.1%)	57 (4.3%)	57(4.3%)	62 (4.7%)
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NA not available
[a]The number of cases with nausea or vomiting is 55 (5.0%)
[b]The number of cases with nausea or vomiting is 178 (17.8%)

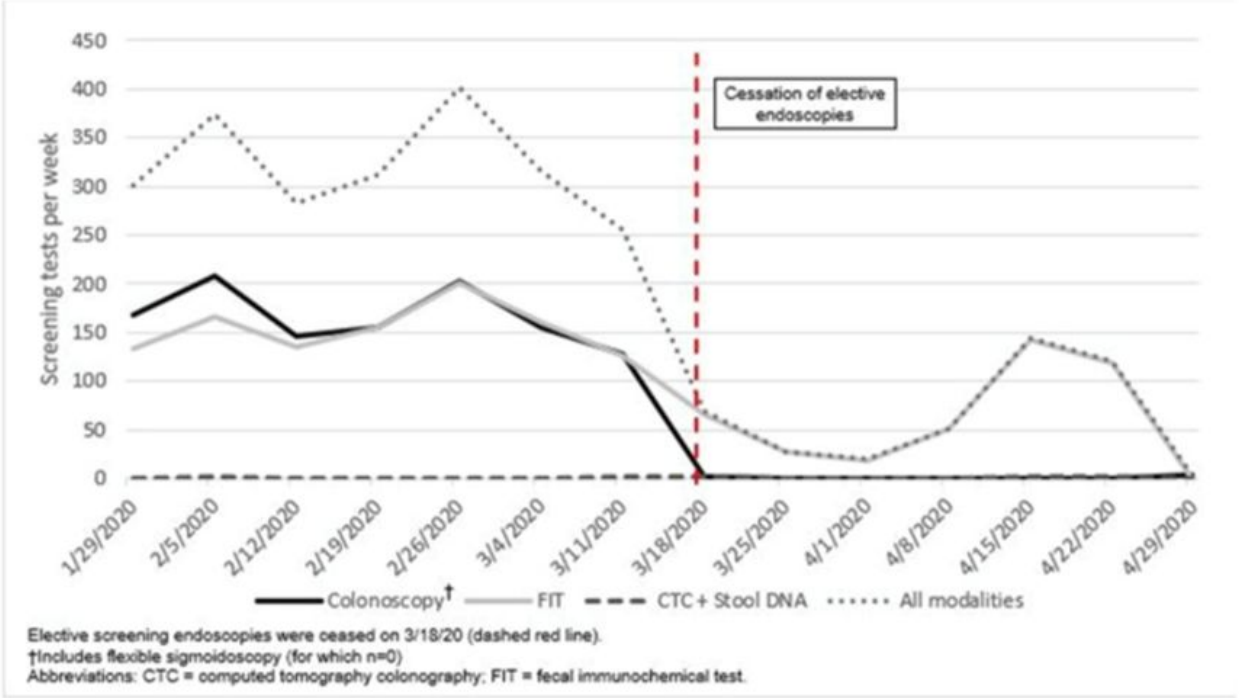
Late GI effects of SARS-Cov-2

- ✓ Missed or delayed CRC diagnosis
- ✓ Persistent SARS-CoV-2 related GI symptoms
- ? New onset or relapse of functional GI symptoms

Impact of the COVID-19 Pandemic on Colorectal Cancer Screening Rates

Miynt A et al. ACG Meeting 2020. Am J Gastroenterol. 115 – S154

Setting: Large Academic Health System (Los Angeles)



Elective screening endoscopies were ceased on 3/18/20 (dashed red line).
†Includes flexible sigmoidoscopy (for which n=0)
Abbreviations: CTC = computed tomography colonography; FIT = fecal immunochemical test.

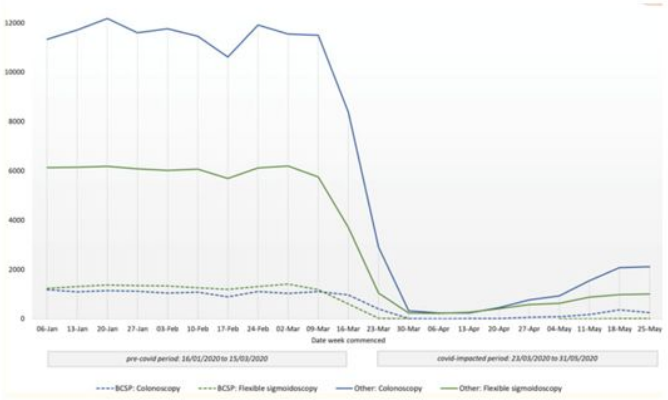
Impact of the COVID-19 pandemic on UK endoscopic activity and cancer detection: a National Endoscopy Database Analysis

Rutter M, Gut 2020 (*in press*)

Weekly number of procedures by time period and change over time, overall and by procedure type

Procedure type	Time period* Pre-COVID	COVID impacted	Change in cancer detection rate
All cancers			
Average cancers detected per week	677	283	
Cancer detection rate (per 100 procedures)	1.91 (1.86–1.95)	6.61 (6.38–6.85)	4.70 (4.46–4.94), p<0.001
Missing cancers in period		3939	
% of cancers 'missing'		58.2%	
Number of procedures per cancer	52	15	
Colorectal cancers (colonoscopy and flexible sigmoidoscopy)			
Average cancers per week	394	112	
Cancer detection rate (per 100 procedures)	1.97 (1.91–2.03)	5.77 (5.44–6.10)	3.80 (3.46–4.13), p<0.001
Missing cancers in period		2828	
% of cancers missing		71.7%	
Number of procedures per cancer	51	17	

Number of Bowel Cancer Screening Programme (BCSP) and non-BCSP procedures per week, by procedure type



Pre-COVID 6 January 2020–15 March 2020
COVID-19 impacted 23 March 2020–31 May 2020

- Missed or delayed CRC diagnosis

- Persistent SARS-CoV-2 related GI symptoms
  - *Post-acute*:symptoms extending beyond 3 weeks from the initial onset of symptoms
  - *Chronic*: presence of symptoms as extending beyond 12 weeks.

Greenhalgh T, et al. BMJ. 2020; 11: 370

- New onset or relapse of functional GI symptoms

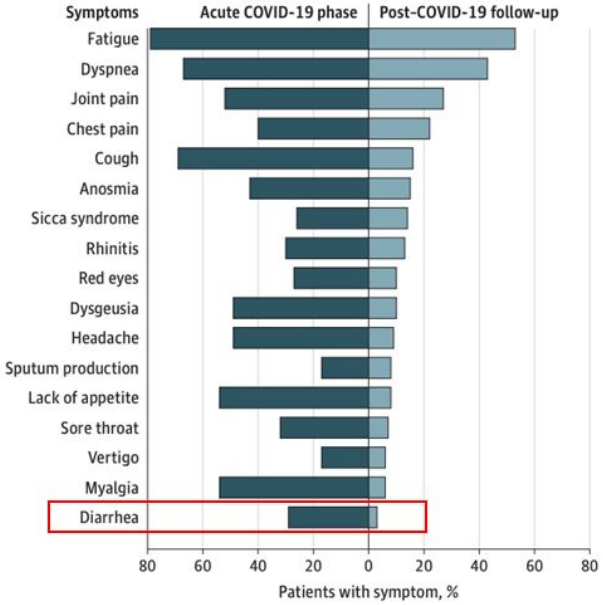
Persistent Symptoms in Patients After Acute COVID-19

Carfì A et al. JAMA 2020; 324, 603

143 patients evaluated at postacute outpatient service for individuals discharged from the hospital after recovery from COVID-19 and SARS-CoV2 PCR negative (Policlinico Agostino Gemelli Roma).

Post-acute COVID-19 follow-up characteristics	
Days since symptoms onset, mean (SD)	60.3 (13.6)
Days since discharge, mean (SD)	36.1 (12.9)
Persistent symptoms, No. (%)	
None	18 (12.6)
1 or 2	46 (32.2)
≥3	79 (55.2)
Worsened quality of life, No. (%)[b]	63 (44.1)

* EuroQol visual analog scale was used to ask patients to score their quality of life from 0 (worst imaginable health) to 100 (best imaginable health) before COVID-19 and at the time of the visit. A difference of 10 points defined worsened quality of life.



The figure shows percentages of patients presenting with specific coronavirus disease 2019 (COVID-19)–related symptoms during the acute phase of the disease (left) and at the time of the follow-up visit (right).

Persistent symptoms 1.5–6 months after COVID-19 in non hospitalised subjects: a population-based cohort study

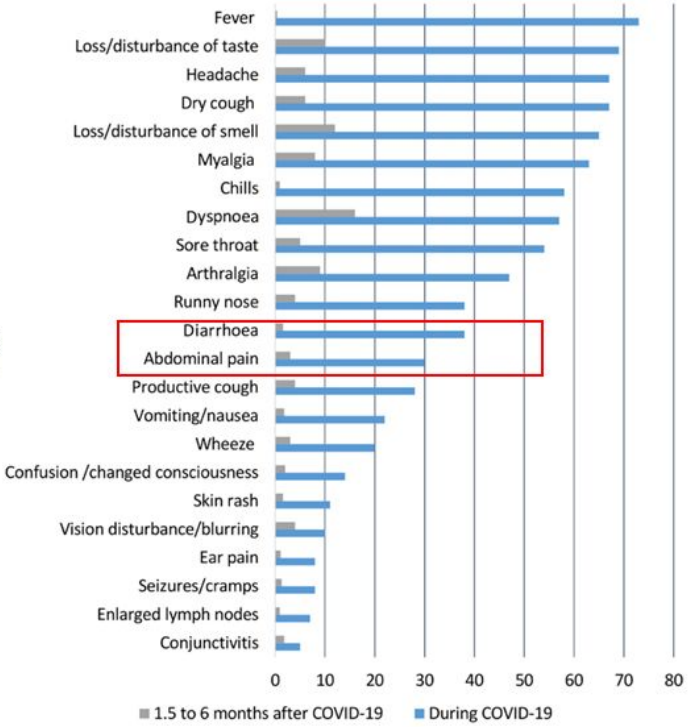
Carfì A et al. JAMA 2020; 324, 603

Cross-sectional survey of a geographical cohort of two Norwegian hospitals

451 responders

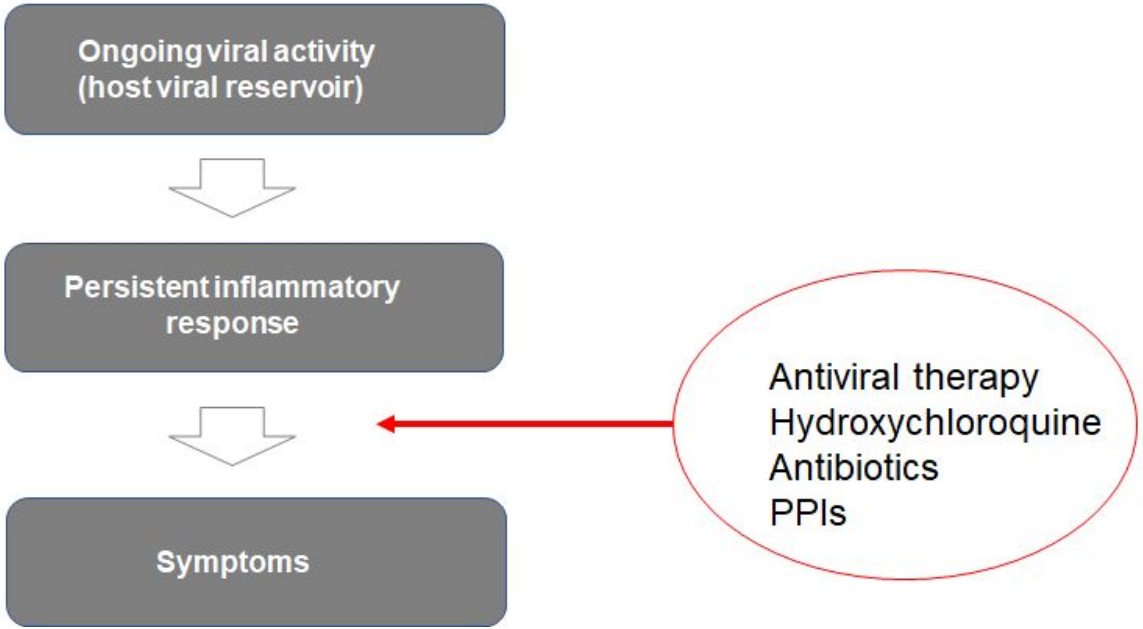
53% of women and 67% of men were *symptom free*

At multivariate analysis, persistent symptoms was associated with the number of comorbidities and number of symptoms during the acute COVID-19 phase



Persistent symptoms after COVID-19: Putative mechanisms

Carlos del Rio et al. JAMA. 2020;324(17):1723-1724



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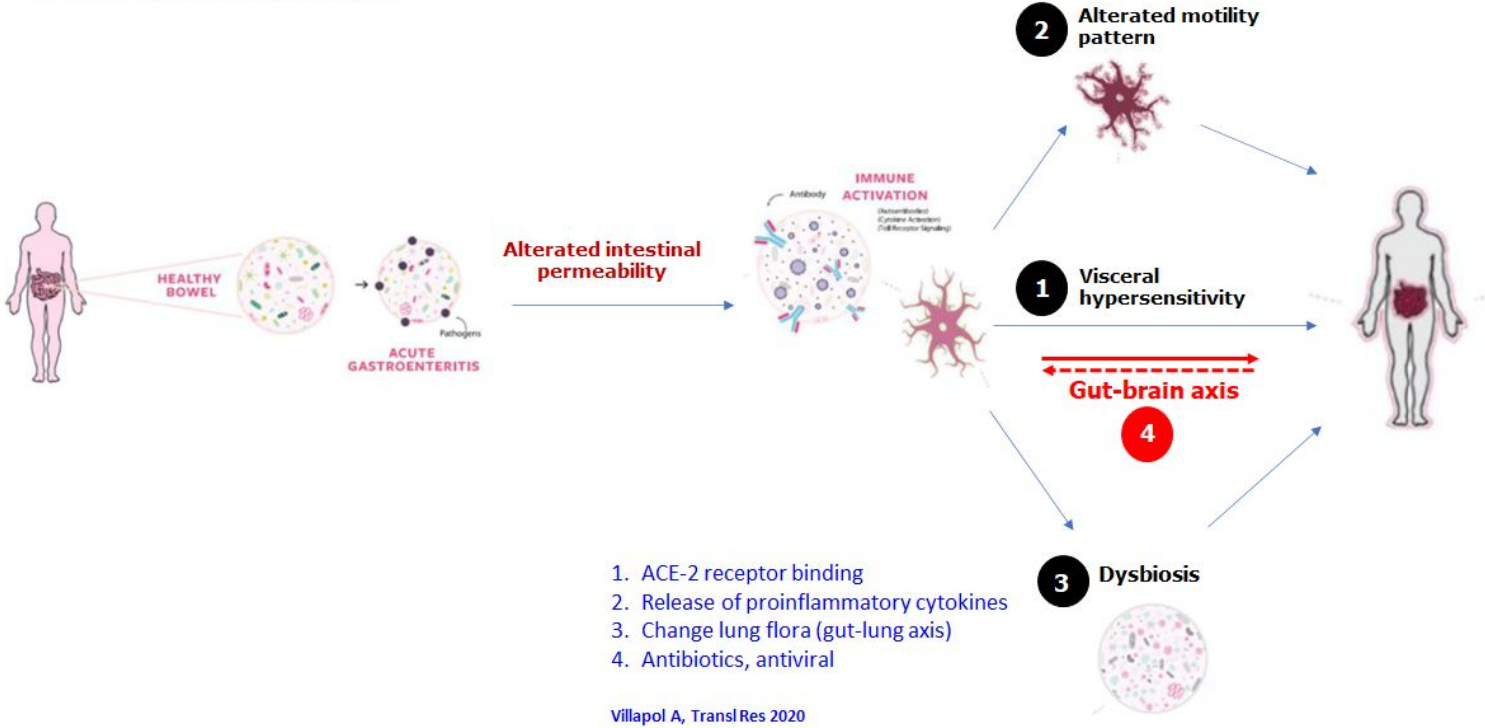
Post-infectious IBS



1. ACE-2 receptor binding
2. Release of proinflammatory cytokines
3. Change lung flora (gut-lung axis)
4. Antibiotics, antiviral

Villapol A, Transl Res 2020