The impact of COVID-19 on proctologic practice in Italy: results from an E-survey of the national Colo-Proctologic units

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INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic has strongly challenged the global healthcare system [1]. In Italy, colorectal surgery has been deeply affected [2], with elective surgeries undergoing a sharp reduction leading to stalling of planned sessions in many centers. The long-term consequences of this scenario will only be quantifiable in the next future.[3]
Proctology has been one of the most affected subspecialties and institutional efforts have been made to ensure basic patient care.[4]

The Italian Colo-Proctologic Units (CPU) are tertiary referral centers affiliated to the Italian Society of Colorectal Surgery (SICCR) and fully dedicated to the diagnosis and treatment of the diseases of colon, rectum and anus. More specifically, they are subclassified in proctological, colorectal or rehabilitative CPU based on their main task.

The ProctoLock 2020 survey [5] sought to snapshot the global status of proctologic practice across 6 world regions during the pandemic.

The aim of this study is to investigate the impact of COVID-19 on the Italian CPU.

MATERIALS AND METHODS

A 27-item survey (namely, 'ProctoLock 2020') was designed and developed by the authors using an online platform ('Online surveys' [formerly BOS – Bristol Online Survey], developed by the University of Bristol) in accordance with the Checklist for Reporting Results of Internet E-Surveys (the CHERRIES statement).[6]

The survey aimed to capture the current status of proctologic practice worldwide, first exploring the overall changes in terms of resource allocation, and secondly assessing in more details the various fields of application for both proctologic surgery (i.e. elective [oncological and non

oncological] and urgent) and outpatient practice, with a focus on sexually transmitted disease and pelvic floor clinics. The availability of anorectal physiology testing was also assessed.

The study was registered at ClinicalTrials.gov (NCT 04392245).

The finalized online survey was made available online from April 15th to 26th 2020. CPU representatives were identified from a total of 1,050 final respondents.

All analyses were performed using Stata 16 (StataCorp LLC, College Station, TX, USA).

RESULTS

From a total of 1,050 respondents worldwide, 299 (28.5%) came from Italy. Among these, 57 (19.1%) were CPU representatives, of whom 28 (49.1%) practiced in the North, 10 (17.6%) in the Center and 19 (33.3%) in the South and Islands (Figure 1). Most respondents were men (91%), with a mean age of 57 years, mainly working in non-academic teaching hospitals (48%), where a dedicated proctologist was available (79%) (Table 1).

Compared to sexually transmitted disease (STD), dedicated pathways for pelvic floor disorders (PFD) were more frequently available (39% and 65%, respectively).

Two thirds (N=39 [68%]) of respondents worked in centers that were partially rearranged to face the COVID-19 emergency, with more than half located in the North of the country. The majority (65%) of them reported that external facilities were only available for performing urgent cases (Table 2).

More than a half of respondents amended the surgical informed consent for both COVID-19 positive (N=34 [60%]) and negative patients (N=32 [56%]), by mentioning the higher risks of in-hospital infection and morbidity.

CPU representatives from the Northern regions were more likely to report personal protective equipment (PPE) readily availability.

Twenty-three (40%) respondents declared to have experience with patients refusing surgery due to the fear of getting infected. Twenty-five (44%) respondents had yet to reschedule patients waiting for surgery or outpatient visit at the time of the survey completion.

DISCUSSION

CPU representatives accounted for almost 20% of the Italian contribution to the ProctoLock survey. In Italy, CPU are referral centers for the diagnosis and treatment of coloproctologic disorders. They are officially recognized by the SICCR and renewed yearly upon assessment of strict criteria.

Interestingly, 16% of respondents had history of COVID-19 positivity, with a peak of 26% for representatives from the South and Islands. Various reasons may explain this figure such as working in hospitals involved at some degree in the care of COVID+ patients (81%), the creation of external facilities for proctologic surgery in 74% of cases, which highlights ongoing proctologic practice in the middle of the outbreak. Of note, 16% of respondents from the South denied the regular use of PPE in theatre with COVID-19+ patients. Finally, recent data support the fecal route as the third way of viral transmission [2].

Despite the target being reference centers, little attention was paid to amending informed consents in order to improve patients' counselling, reflecting the lack of a prompt and decisive reaction of healthcare providers to an unexpected emergency.

A further important threat to healthcare safety is that only two thirds of respondents routinely tested patients for COVID-19 prior to surgery. The sense of fear and uncertainty perceived during the pandemic was the reason for refusing surgery according to 40% of respondents.

The stall of proctologic practice may lead to diagnostic delays, with detrimental effects on outcomes, especially for cancer patients.

As previously advocated [2], the outpatient surgical activity could have been lessen hospitals' commitments by saving healthcare resources (i.e. operating rooms, anesthesiologists, nurses and bed capacity). But this was not the case for at least two reasons, namely the full closure of all non-COVID-related activities (as per national directions) and the currently very limited experience with delivering this type of proctologic surgery. Undoubtedly, this should prompt health authorities and specialists to favor minimally invasive surgery in the direction of setting offices.[4, 7]

The COVID-19 pandemic has put a strain on our national health system: the report from CPU representatives shows that recognized centers of excellence have also fallen victim to the total or near total deadlock of activity. We hope that the events taking place serve as a lesson for the future so that specific pathways of care can be put in place to react efficiently and competently to unexpected crisis of the extent of COVID-19 pandemic.

REFERENCES

1. CovidSurg, C., D. Nepogodiev, and A. Bhangu, *Elective surgery cancellations due to the COVID-19 pandemic: global predictive modelling to inform surgical recovery plans.* Br J Surg, 2020.
2. Di Saverio, S., F. Pata, G. Gallo, F. Carrano, A. Scorza, P. Sileri, et al., *Coronavirus pandemic and Colorectal surgery: practical advice based on the Italian experience.* Colorectal Dis, 2020.
3. Giani, I., C. Elbetti, M. Trompetto, and G. Gallo, *Proctology in the COVID-19 era: handle with care.* Br J Surg, 2020.
4. Gallo, G., M. La Torre, R. Pietroletti, F. Bianco, D.F. Altomare, S. Pucciarelli, et al., *Italian society of colorectal surgery recommendations for good clinical practice in colorectal surgery during the novel coronavirus pandemic.* Tech Coloproctol, 2020.
5. Gallo, G., A. Sturiale, I. Giani, S. Mancini, G.L. Di Tanna, F. Bianco, et al., *Deadlock of proctologic practice in italy during covid-19 pandemic: a national report from ProctoLock 2020.* Updates Surg, 2020 (in press).
6. Eysenbach, G., *Improving the quality of Web surveys: the Checklist for Reporting Results of Internet E-Surveys (CHERRIES).* J Med Internet Res, 2004. **6**(3): p. e34.
7. Elbetti, C., I. Giani, E. Novelli, J. Martellucci, and F. Feroci, *Symptomatic pile tailored procedure. A new perspective for hemorrhoidal disease treatment.* Ann Ital Chir, 2017. **88**: p. 348-351.