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Correspondence

Endoscopy during the COVID-19 pandemic: Is it time to down-grade personal protective equipment for vaccinated personnel?



Dear Editor,

As of 27 February 2021, Italy is facing the third and hopefully last wave of the coronavirus disease 2019 (COVID-19) pandemic [1]. A year has passed since 21 February 2020, when the first case of severe COVID-19 resulting from SARS-CoV-2 virus infection was reported in Italy following a major outbreak in China. The huge numbers of patients since have put the healthcare systems of the most stricken areas of northern Italy, especially the region of Lombardy, under great pressure. As a consequence, all hospitals have been reorganised in order to redirect personnel to new COVID-19 units and avoid viral spread to outpatient clinics. Endoscopic procedures are considered to pose a high risk of infection, mainly through viral spread in droplets generated during upper endoscopy and the presence of viral particles in the faeces of patients undergoing colonoscopy. For these reasons, in March 2020 endoscopy units were reorganized with strict patient triage in order to reduce the number of procedures [2] and personnel had to wear full protective equipment (PPE) (i.e., a N95 or FFP2/FFP3 respirator, a hairnet, a double pair of gloves, a disposable waterproof surgical gown, a face shield or goggles, and work safety clogs) to protect themselves from SARS-CoV-2 infection [3], despite discomfort during challenging endoscopic procedures or long sessions.

However, in the last few months, vaccines against SARS-CoV-2 have become available. Four vaccines have been approved by the European Medical Agency (EMA) for use in the European Union: Comirnaty (Pfizer/BioNTech), mRNA-1273 (Moderna), Vaxzevria (AstraZeneca) and Ad26.COV2-S [recombinant] (Janssen), while CVnCoV (CureVac), NVX-CoV2373 (Novavax) and Sputnik V (Gamaleya National Centre of Epidemiology and Microbiology) are currently under evaluation and will probably be approved [4]. Some of these vaccines are the first drugs to be developed using new mRNA technology.

Preliminary data from real-life scenarios [5] have confirmed the findings of randomized clinical trials: mRNA-based vaccines (Comirnaty, mRNA-1273) have high efficacy in preventing severe as well as symptomatic disease even in patients infected with new virus variants (e.g., B.1.1.7) [5,6]. In addition, although not showing high efficacy against symptomatic disease, an approved heterologous recombinant adenovirus-based vaccine (ChAdOx1) has shown excellent results in preventing hospital admission in COVID-19 patients [7]. The intense research activity, the impressive financial support and the acceleration of the administrative processes of regulatory bodies are making vaccines rapidly available.

In most countries, vaccine campaigns have first targeted medical personnel as they are the most exposed to infected patients

and a possible source of transmission to fragile patients. Italy began its vaccination program on 27 December 2020 by administering mRNA vaccines to healthcare personnel, who should develop protective antibody titres 4–6 weeks after vaccination. Consequently, would it be safe for vaccinated personnel to stop wearing full PPE when performing endoscopy procedures [8] in outpatient units?

In addition to the discomfort of wearing full PPE, especially during long and challenging procedures, other factors should be considered. Vaccines protect against severe COVID-19 requiring hospitalization and respiratory support, but it is not clear if they provide protection against SARS-CoV-2 infection. Therefore, it is uncertain if vaccinated individuals could be a source of infection, even for a restricted time and with a reduced viral load. Furthermore, the appearance of new virus variants in addition to D614G and B.1.1.7, which appear less susceptible to vaccines in the laboratory [9], is a cause of concern.

Thus, it remains unclear whether vaccination efficacy could justify a lighter approach to PPE.

As a result, until more data on the effectiveness of vaccines are available, physicians and endoscopists should continue to use full PPE, as previously described [8], and maintain maximum precautions to guard against infection with virus variants and to prevent spread to patients. Unfortunately, though vaccines offer real hope that we will be able to move on from this pandemic, it is not yet time to relax our guard.

Declaration of Competing Interest

None declared.

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