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Mini Review

Are we Witnessing a Change in the Paradigm Established for the Surgical and Critical Patients´ Management in the Upcoming COVID-19 Pandemic Waves?

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Abstract

Taking into account the results and actions performed during the previous COVID-19 pandemic waves, it seems that in the last wave in our Region, the decision-making process that concerned patients, both surgical and those who required intensive or critical cares, have been adapted and changed, based on modifications suffered in care indicators, both in terms of available resources and in the volume of activity demanded by both COVID-19 infected or non infected patients operated on.

This article aims to offer some new perspectives on this issue.

Keywords: *COVID-19 Pandemic; SARS-CoV-2 Infection; Safety Management; Surgery*

Abbreviations

COVID-19: SARS-Cov-2 Virus; In Reference to Patients Infected with this Virus; PCR: Viral Antigen Detection for COVID-19 by Polymerase Chain Reaction Test in Nasopharyngeal Smear

Introduction

The pandemic caused by the SARS-CoV-2 virus (hereinafter, COVID-19) since its declaration in March '20, triggered the postponement of some scheduled surgical activity during each pandemic wave in different volumes [1-3].

In our Region, after the pandemic wave ended on May 2, 2021, where the proportion of detection for COVID-19 polymerase chain reaction test (hereinafter, PCR) positivity decreased steadily and constantly below 5.0% [4], hospital activity progressively was normalized in our center and Region. During the following weeks, a hospitalization unit and an intensive care unit were necessary to be dedicated to inpatients infected by COVID-19.

We dated the start of a new pandemic wave from June 24, 2021, when the proportion of PCR positivity was 5,44%, and thereafter increased progressively.

In the previous pandemic waves, the Regional Government decreed in our Region some restrictions [5], which included the maintenance of regional confinement [6], the capacity of meetings and celebrations restricted to 6 people maximum, or, thus, a limitation of time zones mobility by night. Moreover, mass events were suspended, and finally, establishments of first necessity (food, fuel, or pharmacies,

among others) were kept open only. In this new wave, only the mandatory use of a mask, social distancing (including suspension of mass events, and limited number of people allowed inside) and hand hygiene were maintained. The rest of restrictions were not applied for different reasons of a legal nature, after having ended the State of Alarm that preserved them.

The proportion of PCR positivity was 1.6% during the first wave [1]; it reached a peak around 10.5% during the second wave [2], while it was around 12.9% during the third one [7]. However, in this new wave, throughout July 2021, the maximum peak was 16.22% [8].

The accumulated incidence rate began to increase suddenly since July 5, doubling on a weekly basis, until reached a peak around 660.65 cases per 100.000 inhabitants in the last 14 days [8] on July 19, 2021.

However, both events did not have the expected impact on hospital occupancy index, as it was in previous waves, in which maximums of up to 20% of the total beds installed in conventional hospitalization, or around 50% of the total critical beds were reached, coinciding with and after these peaks [1-3]. In this new wave, the peaks were 5.14% and 11,74% respectively.

In terms of activity, during others pandemic waves, delayable and non-preferent patients [9] were postponed in different volumes (from -17,7% to -76,0%) [1-3], while in this last wave surgical activity recovered amounts similar to or slightly lower than in years prior to the pandemic, with a total of 908 patients operated on a scheduled basis in July 2021, compared to 1024 patients in July 2019 (-11,3%).

Taking into account these circumstances commented, that involved both results and actions performed during the previous COVID-19 pandemic waves, it seems that in the last pandemic wave in our Region, the decision-making process that concerned patients, both surgical and those who required intensive or critical cares, have been adapted and changed, based on modifications suffered in the conditions, both in terms of available resources and in the volume of activity demanded by COVID-19 infected patients.

In our Region, the vaccination strategy against COVID-19 pandemic began on December 27, 2020 [4], depending on the different risk criteria of the population, periodically published and updated by the Ministry of Health [10]. Vaccination coverage with at least one dose reached 70% of the total regional population (including children under 12 years old) on July 20 [4].

The evolution of proportion of vaccinated population [4,7,8], in comparison with both the hospital occupancy index (both in conventional and critical beds), the accumulated incidence rates, and the proportion of PCR positivity in our Region, allows us to hypothesize that, in this latest pandemic wave (in which there were only hygienic and social distancing measures), vaccination seems to represent a factor that would have modified the impact of the disease, so the indicators previously commented for the decision-making process might have to be reviewed and updated.

Conclusion

The stress suffered by the organization appeared to have been substantially less than in previous pandemic waves. So, the impact of the disease might have change, and indicators previously commented for the decision-making process might have to be reviewed and updated. To confirm this hypothesis, more detailed studies are necessary worldwide.

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Bibliography

1. Perez-Holanda S. "Organizational Aspects of Clinical Safety in Surgical Patients during the Covid-19 Pandemic in a Tertiary Level Hospital". *EC Gastroenterology and Digestive System* 7.12 (2020): 08-21.

2. Perez-Holanda S. "Different Strategical Lines in Clinical Safety for Surgical Patients during the Two COVID-19 Pandemic Waves in a Tertiary Level Hospital". *EC Gastroenterology and Digestive System* 8.2 (2021): 86-98.

3. Perez-Holanda S. "What we have Learned during these Three Pandemic Waves". *EC Gastroenterology and Digestive System* 8.7 (2021): 01-10.

4. General Directorate of Public Health. Government of the Principality of Asturias (Oviedo, Asturias, Spain). "Health Website of Principality of Asturias: Regional COVID-19 situation depending on the Health Area". *Daily Accumulative Reports by Internet Access* (2021).

5. Government of the Principality of Asturias. "Decree 34/2020, of December 11, by which measures are adopted to contain the spread of infections caused by SARS-CoV-2 within the framework of the state of alarm, during the Christmas Time". Official Gazette of the Principality of Asturias (BOPA) number 238 (2020).

6. Government of the Principality of Asturias. "Decree 29/2020, of November 3, second modification of Decree 27/2020 of October 26, by which measures are adopted to contain the spread of infections caused by SARS-CoV-2 within the framework of the state of alarm". Official Gazette of the Principality of Asturias (BOPA) number 212 (2020).

7. Managing Director of Health Care Area IV. "Medical Subdirectorate for Basic Services, including Department of Clinical Analysis. "Regional COVID-19 RNA cycles, and depending on the Health Area of origin of the request". Daily reports in electronic spreadsheet format (2021).

8. General Directorate of Public Health. Government of the Principality of Asturias (Oviedo, Asturias, Spain). "Health Observatory of Asturias: Regional COVID-19 situation depending on the Health Area". Daily accumulative reports by Internet Access (2021).

9. Government of Spain. "Royal Decree 1039/2011, of July 15, which establishes the framework criteria to guarantee a maximum time of access to the health benefits of the National Health System". Official Gazette of Spain (BOE) number 207(2011).

10. General Directorate of Public Health. "Instruction number 04/2021, to update the Vaccination Strategy against COVID-19 in Asturias in relation to Update number 4 of the National Strategy". Government of the Principality of Asturias (Oviedo, Asturias, Spain). Technical Document (2021).

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