Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

International Journal of Surgery Open 26 (2020) 106–107

Contents lists available at ScienceDirect

International Journal of Surgery Open

journal homepage: www.elsevier.com/locate/ijso

Perspective

COVID-19 in Ecuador, how the pandemic strained the surgical healthcare systems over the edge

Gabriel A. Molina [a, *], Christian L. Rojas [b], William G. Aguayo [b], Miguel A. Moyon C [c], Fernando X. Moyon [d], J. Marcelo Herrera [e], Galo E. Jiménez [e], Andres V. Ayala [e], Germanico Fuentes [e], Santiago A. Endara [f]

[a] Escuela de Medicina, Universidad San Francisco de Quito (USFQ), Department of General Surgery at Hospital Iess Quito Sur, Quito, Ecuador
[b] Hospital Padre Carollo "Un Canto a la Vida", Grupo Digeslap Center, Quito, Ecuador
[c] Escuela de Medicina, Pontificia Universidad Católica del Ecuador (PUCE), Department of General Surgery at Hospital General San Francisco Iess, Quito, Ecuador
[d] Escuela de Medicina, Pontificia Universidad Católica del Ecuador (PUCE), Clinica Integral, Quito, Ecuador
[e] Department of General Surgery at Hospital Iess Quito Sur, Quito, Ecuador
[f] Department of General Surgery, Division of Cardiothoracic Surgery, Hospital Metropolitano, Quito, Ecuador

ARTICLE INFO

Article history:
Received 6 August 2020
Accepted 25 August 2020
Available online 2 September 2020

Dear Editor:

Ecuador's response to the COVID-19 pandemic started on February 26, 2020, when the first case was detected in Guayaquil [1,2]. Several mitigation measures were implemented at that time, including temperature monitoring, and checking for other COVID-19 related symptoms in travelers returning from high-risk countries [3]. Yet, as the cases continued to rise, several policies were implemented to reduce the number of infections, following the example of other countries including Spain, Italy, France, and China. Activities deemed non-essential were suspended, school and universities were closed, and virtual platforms were encouraged to sustain academic activities, jobs, and medical care [1,4]. Ecuador closed its land, air, and sea borders and several restrictions to vehicular and pedestrian traffic were implemented as part of a national lockdown [1]. Nonetheless and despite these measures, the number of cases overrun the national health services. One ominous sign of this surge in infections was the eight-fold increment in expected fatalities during the first two weeks of April [4]. Health care systems like our own and all over the world were not prepared for this disease, as we witnessed the human toll COVID-19 took in New York City, Madrid, and northern Italy [5]. Due to our scarce resources and the high demand for medical attention in an already strained medical service, healthcare providers such as surgeons, anesthesiologists, urologists, and gynecologists had to assume the role of clinicians. Most of the surgical workforce was transferred and are still in COVID-19 care.

Four months after the start of the COVID-19 epidemic in Ecuador, we surgeons continue to work with resilience, adapting to the changes in our new role and enduring under these adverse circumstances. We have seen how many treatments including Remdesivir, hydroxychloroquine, and different antibiotic and antiviral therapies have failed to adequately treat the infection [6]. Different ventilation regimes have also proved insufficient to improve the survivability of our patients. As the number of occupied hospital beds increased, it became clear that our planning and training were inadequate to address the magnitude of COVID-19. The surgical activity has been limited, and we continue to operate in emergency cases only. All elective procedures have been canceled or delayed and outpatient attention has also been canceled [7,8].

A worrisome side effect of the COVID-19 pandemic is the delay in surgical treatment for seriously ill patients. We have seen an increase in surgical complications due to delayed care, lack of access to the healthcare system and a hesitancy of patients to seek care due to fear of the virus. Ecuador and Latin America in general face

* Corresponding author. Department of General Surgery at Hospital IESS Quito Sur Quito-Ecuador, Grla. Eloy Alfaro S6 119 y Pasaje Cueva, San Juan de Cumbaya, Ecuador.
E-mail addresses: gabomolina32@gmail.com (G.A. Molina), doctorbroco@hotmail.com (C.L. Rojas), williamaguayomd@hotmail.com (W.G. Aguayo), mmoyon.surgeon@gmail.com (M.A. Moyon C), xavomcons@hotmail.com (F.X. Moyon), juanmar277@hotmail.com (J.M. Herrera), galojimenez1981@yahoo.com (G.E. Jiménez), andres_pojkar@hotmail.com (A.V. Ayala), germanicofl@gmail.com (G. Fuentes), drsantiagoendara@gmail.com (S.A. Endara).

https://doi.org/10.1016/j.ijso.2020.08.012

limitations in intensive care unit beds, operating rooms and surgical equipment availability, even in the absence of a pandemic [8]. This reality is likely to worsen in the upcoming months. Finally, a longer patient waiting list for elective surgeries is expected, further delaying care. Nonetheless, the complete ramifications of this disease are yet to be seen, as surgical patients require close follow up to avoid complications and to provide necessary treatment when they arise. As hospitals continue to cope with the presence of COVID-19, we wonder what happened to our patients who didn't have access to adequate attention and how many complications did we miss. How many patients could have been saved had we been able to provide life-saving procedures? And, most importantly, how much have we failed to our patients? This feeling of self-reproach, taken together with chronic stress, emotional and moral distress, and increased personal and family risk in healthcare personnel may lead surgeons to question their role in this critical scenario, especially those of us who are still in contingency.

Although COVID-19 is a nonsurgical disease, there remains much to be learned about its proper prevention and treatment. We are still in the early phases of the pandemic, where no treatment or vaccines are currently available or likely to become available in the near future. Nonetheless, due to the economic burden, many human mobility restrictions are being lifted and a surge in new cases is expected. Many countries are beginning to accommodate elective surgeries in this “new normal", yet we believe that for the moment in our conditions, elective surgeries should remain canceled, it is better to be safe than sorry [9,10].

Developing countries like Ecuador, where health services were already limited, will have to prepare for the next wave of infections and provide the best possible care in this difficult situation. Surgical departments will always be an essential part of any hospital, and while the COVID-19 pandemic is a non-surgical emergency, the lessons learned may allow medical systems and surgical departments to become stronger to face future challenges. These conversations must take place soon to implement changes in local governments and healthcare services. Failing to adapt to these circumstances will worsen our prospects and hinder our capacity to react to these types of emergencies, to the detriment of the patients above all.

A coordinated action is required, especially in developing countries, to minimize the aftermath of the COVID-19 pandemic. This would allow us to keep faith in the resurgence of surgical services to provide the same high-quality attention we once offered.

Ethical approval

The authors declare that we obtained permission from the ethics committee in our institution.

Funding

The authors have no funding to report.

Author contribution

Gabriel A. Molina Conceptualization, Formal analysis
Christian L. Rojas Conceptualization
William G. Aguayo; Data curation
Miguel A. Moyon C. Conceptualization
Fernando X. Moyon Conceptualization
Juan M. Herrera ; Data curation
Galo Enrique Jiménez; Formal Analysis
Andres Vinicio Ayala; Data curation
Germanico Fuentes: Data curation
Santiago A. Endara Conceptualization

Conflict of interest statement

The authors declares that there is no conflict of interest regarding the publication of this article.

Guarantor

Gabriel A. Molina

Research Registration Number

The authors declare that the patient gave his consent to publish this case, and as this is a case report not human participants were involved in a study.

Permission note

We have written permission of the ethics committee in our hospital to publish this manuscript.

Consent

The authors declare that written consent was obtained from the patient before publication of this case.

Authors statement

We certify that all authors have seen and approved the final version of the manuscript being submitted.

The article is the authors' original work, hasn't received prior publication and isn't under consideration for publication elsewhere.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ijso.2020.08.012.

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