



## EDITORIAL

## Surgery of Oncologic Surgical Pathologies during the COVID-19 Pandemic: The Ordeal of the Oncologic Patient

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The COVID-19 pandemic has been one of the worst global public health crises of the 21<sup>st</sup> century. Global health was strongly affected by the dynamics of nations in the face of measures to contain the SARS-Cov-2 infection, such as confinement and redistribution of resources, which delayed the diagnosis and treatment of a large number of diseases, negatively modifying the prognosis and quality of life of these patients [1]. The burden of surgical and oncological diseases is currently very high, and its reduction is one of the priorities of global health [1-5].

During the pandemic, there was a delay in the management of both pediatric and adult cancer patients who had elective surgery for tumor resection and initiation of adjuvant and neoadjuvant therapy. Thanks to the immediate response of international collaborations and specialized teams, several international multicenter prospective studies were designed to determine the impact of delay in the management of oncological diseases. Węclawek-Tompol, et al. [1] conducted a nationwide study in Poland, where they evaluated the impact of treatment interruption of in pediatric cancer patients, within which some became infected. Nevertheless, they found that 100-day survival was 97.3% [95% CI, 92.9-

99%], and the delay in the chemotherapy cycle had a median of 14 days [2-105 days] [1]. This result is interesting, considering that oncology patients are considered a risk group for the development of severe COVID-19 phenotype and death [2]. On the other hand, The COVID Surg Collaborative investigated the effect of COVID-19 pandemic lockdowns on planned cancer surgery for 15 tumor types in 61 countries, where they found that 2,003 patients did not receive their surgery in a timely manner due to reasons associated with the COVID-19 pandemic [3]. It was shown that both moderate lockdowns [Hazard Ratio (HR) 0.81; 95% CI, 0.77-0.84; p < 0.0001] and full lockdowns [HR 0.51; 95% CI, 0.50-0.53; p < 0.0001], were the main causes of cancellation of scheduled surgeries [3]. In contrast to what was found in the national study in Poland, these results allowed us to conclude that there is a substantial weakness in the global health systems, which are not prepared to face public health crises; 1 in 7 patients do not receive oncological surgery within the established timeframe [3].

A study conducted in Greece and Cyprus assessed the differences between the first and second waves of the COVID-19 pandemic, finding that both surgeons and patients perceived limited availability of health services



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[4]. They describe as alarming the deficiencies in terms of patients' needs and the responsiveness of public policies and hospitals [4]. A multicenter prospective cohort study conducted in 82 countries, including 15,958 patients from high-, middle- and low-income countries, investigated the variability of postoperative mortality and complications in patients with oncologic diseases [5]. It was evidenced that cancer patients from low-income countries present more advanced stages, and therefore have a very high 30-day mortality rate, compared to high-income countries. This is more intense in cases of gastric cancer [adjusted odds ratio (aOR) 3.72; 95% CI, 1.70-8.16] and colorectal cancer [aOR 4.59; 95% CI, 2.39-8.80] [6]. The rate of postoperative death due to complications was also higher in low- and middle-income countries [aOR 6.15; 95% CI, 3.26-11.59], compared to high-income countries [aOR 3.89; 95% CI, 2.08-7.29] [6]. In this order of ideas, and considering the organizational modifications, redistribution of resources and space, reorganization of medical teams, alteration in the flow of patients, it is estimated that at present and in the short-term, especially in low- and middle-income countries, the prognosis and mortality of patients undergoing oncological surgery, will worsen.

In this order of ideas, it is evident the collateral damage that COVID-19 has generated on the timely diagnosis, adequate treatment, prognosis and mortality of the oncological patient. In low- and middle-income countries, it is necessary to design specialized centers to facilitate the flow of patients who already have a presumptive diagnosis and need to be treated quickly in order to start chemotherapy [7,8]. Safety and efficacy in the performance of oncologic surgery is one of the objectives of surgery and global health, since it is one of the elements that generates the greatest burden of disease, and substantially affects the quality of life of mankind.

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