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COVID-19 Pandemic And Surgery: An International Study

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Abstract

The GlobalSurg is a project that provides the creation of an international research network in the surgical field, with the aim of producing studies that can improve global health. With the onset of the Covid-19 pandemic, a new platform was created, the CovidSurg, which aims to study the impact of Covid19 on the management of surgical procedures and surgical patients. The department of Surgical, Oncological and Oral Sciences took part to this project, together with 1676 other centers in 122 countries all over the world.

The GlobalSurg is a project that in collaboration with the NIHR Global Health Research Unit on Global Surgery aims to deliver international cohort studies to ensure an improvement in surgical outcomes all around the world.

Since the beginning of the SarsCov19 pandemic, several issues about the correct management of surgical patients, both tested positive and negative for SarsCov2 infection, arose. The main issue was to avoid the delay or cancellation of elective surgical interventions. For this reason the CovidSurg network was created, a platform dedicated to the development of international and multicentric studies concerning the impact of Covid19 on surgery. Any hospital worldwide could participate (122 nations, 1677 hospital centers and 142,815 patients were involved indeed), with the only condition of producing anonymous data according to the guide lines and the forms available on the organization's online site. The studies conducted in CovidSurg belonged to three main categories: CovidSurg, CovidSurg-Cancer and GlobalSurg - CovidSurg week. The CovidSurg is a cohort study involving patients affected by SarsCov2 infection candidate to **any** type of surgery in an operating theatre, including obstetrics. The aim was to study the mortality at 30 days from surgery (primary outcome) and the onset of serious complications such as respiratory failure or sepsis (secondary outcome). CovidSurg-cancer is a cohort study involving oncologic patients who are candidate for curative surgery. The population is made up of both patients who underwent surgery during the Covid pandemic, and those whose surgery has been postponed or canceled due to Covid pandemic. The aim was to study SarsCov2 positivity 30 days after surgery (primary outcome), 30-day mortality, delayed surgery beyond one month or progression to untreatable pathology in the next 3 months

(secondary outcomes).

GlobalSurg - CovidSurg week, is an ongoing cohort study that aims to determine the right surgical timing following Covid19 infection. These studies showed that the creation of different pathways for positive and negative Covid-19 patients is associated with good surgical success, with a number of complications comparable to those before the Covid19 pandemic. Furthermore, patient tested positive for SarsCov2 are fragile patients and are associated with a higher onset of complications: it is therefore recommended to postpone surgery to at least 1 month after the detect of the infection. The GlobalSurg - CovidSurg week study is a study that involves patients of all ages, with any SarsCov2 status, undergoing to any type of surgery during one single week, with a following 30 days follow up. The primary outcome of the study is to assess the mortality in the first 30 days; the secondary outcomes are to assess the severities (as pulmonary complications or thromboembolism) in first 30 days. This study, still ongoing, aims to determine the correct surgical timing and the main surgical indicators, validating the data collected in the previous studies.

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