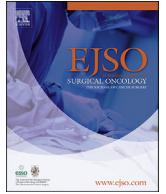




Contents lists available at ScienceDirect

European Journal of Surgical Oncology

journal homepage: www.ejso.com

Surgical oncology in the pandemic. Lessons learned and future perspectives

Keywords:
COVID19 Pandemic
Surgical oncology

Dear Editor,

The concept that medical facilities and health workers might be an important contamination route in the pandemic has brought to specific attitudes for the population as well as for legislators. During the acute phase of the outbreak elective, deferrable surgeries have been rarely performed. Only patients with unbearable symptoms have asked for medical help. Surgeons have postponed or cancelled many elective treatments, reserving admission to the hospital only to patients with malignancy which could pose a threat to survival [1–3]. We are looking at a new form of physician-patient relationship. Patients and surgeons have adapted to a new way of remote communication. The COVID-19 crisis is forcing elimination of low-value treatments for patients with malignancy and to modify therapeutic schema. Oncologists are reasonably prescribing marginally less effective regimens that have lower risk of precipitating hospitalization, substituting oral for intravenous agents and using other modifications to minimize visits and hospitalizations [3,4]. In patients with major, life-threatening cancer complications requiring surgical intervention, a careful assessment of risk and benefits is always required; but in the pandemic period the risk for contamination should be considered. In all hospitals, visits from relatives are not allowed, so that the patient undergoing major surgery should expect a significant isolation time with inevitable negative psychological consequences. Cancer and cancer-related surgery frequently cause immune suppression, and patients with cancer have increased mortality risk from severe acute respiratory syndrome. Patients with cancer, older than 65 years and pulmonary compromise are at a higher risk for COVID 19 infection and mortality. General anesthesia with tracheal intubation, postoperative pain, Intensive Care Unit permanence are some of the most common risk factors for postoperative pulmonary complications. Operative endoscopy,

generally considered only a palliative form of treatment, does not require general anesthesia with tracheal intubation, and hospital stay is shorter. Operative endoscopy should be evaluated in the pandemic differently than in usual times. Endoscopic procedures which have the same results of standard surgery, or even a marginal less effective result, should be preferred. Placement of self-expandable metal stents to relieve malignant colorectal or gastric obstruction represents a valid temporary choice, deferring definitive surgery, if required, to more convenient times. Malignant obstructive jaundice, associated or not with gastric outlet obstruction, can be relieved by stent placement, deferring complex surgery to more appropriate conditions and time. The endoscopic removal of a bleeding small colorectal cancer may represent a valid choice: surgical resection, if required, may be performed during the follow-up period. The appropriate therapeutic approach to patients should be tailored considering also the capability of the local health care system to meet existing and projected needs.

In regions where the pandemic has a low diffusion, the health care workforce is intact and hospital beds and equipment are available, surgeons may propose more conventional surgical indications. In regions with a high diffusion of the pandemic, in the acute phase where the workforce has limited capacity and the health care system is overwhelmed with COVID-19 patients, surgeons must accept compromises and to choose a treatment, which has low short term complication rates, which requires less organizational efforts, with reduced possibilities of contamination and pulmonary complications, rather than a treatment which has been always considered more effective in the medium and long-term.

It may sound unethical, but from this critical condition we may find stimuli to perfect a new vision of surgery. After this crisis, the improvement in telemedicine will remain and may represent the basis for future patient-physician relationship. Follow-up visit and diffuse screening programs, even in people in distant regions and countries will be more frequent without major inconvenience. Medical and surgical complications in oncologic patients will be more carefully evaluated, including a diffuse analysis and definition of quality of life for patients and their families. The possibility of prolonged hospital stay, including significant time in the Intensive Care Unit, will be at the center of the surgical evaluation. Costs of treatment will be another aspect of the oncologic evaluation, considering that in the pandemic we found ourselves inevitably

<https://doi.org/10.1016/j.ejso.2020.07.007>

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Please cite this article as: Sterpetti AV, Surgical oncology in the pandemic. Lessons learned and future perspectives, European Journal of Surgical Oncology, <https://doi.org/10.1016/j.ejso.2020.07.007>

short of resources.

Declaration of competing interest

No funds were received for this work the author has no conflicts of interest to declare.

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