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Letter to the editor

COVID alias challenge to onco-rehabilitation and to viable indications and decisions: Cues from an Italian COVID + oral cancer patient


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Dear Editor,

the recent onset of COVID-19 pandemic has prompted an urgent rearrangement of the healthcare system, in order to provide the best care for infected patients while continuing to treat properly any other illnesses. In this scenario, oncologic diseases deserve special attention because of their tremendous impact on patients' quality of life and worsening of prognosis, if neglected. For this reason, in northern Italy few hospitals, including the European Institute of Oncology in Milan, have been selected to remain "COVID-free". The aim was to preserve the institutional Intensive Care Units from COVID-19, so that oncologic surgeries could proceed unaltered.

Despite a high level of alert, the restricting triages and several protocols aimed at identifying infected patients and containing the spread of the virus inside the institution, a hospitalized patient developed a latent COVID-19 infection during his post-operative convalescence at our Division of Otolaryngology and Head and Neck Surgery. The unfortunate diagnosis impacted his subsequent care and we would like to share some thoughts about it.

The aforementioned patient is a 50-year-old male with mild obesity (BMI: 38), affected by blood hypertension under ACE-inhibitor and diuretic therapy. He denies smoking and alcohol habits and is allergic to salicylic acid. He was referred to our Division for a poorly differentiated squamous cell carcinoma of the right tongue border, classified as cT3N0M0 (stage III) according to the 8th edition of AJCC cancer staging manual [1]. On admission he was afebrile, had no cough and denied contacts with possibly infected and/or contagious people in the previous two weeks. Pre-operative blood tests were unremarkable. He underwent a major surgery: right glossectomy type 3A [2] and en block ipsilateral neck dissection levels I to IV, temporary tracheotomy and reconstruction with left radial forearm free flap. Surgery proceeded uneventfully, except for an increase of rectal temperature (38–39 °C) starting 2 h after the incision and continuing throughout the rest of the procedure. During the following 48 h, he suffered from persistent fever and isolated episodes of mild hypoxemia, so he underwent a bedside chest X-ray, which showed a suspicious opacity in the right middle lobe. According to the Institutional protocol, a naso-oro-pharyngeal swab was

collected and proved positive for SARS-CoV-2. The patient was then placed in droplet isolation and treated with antiviral therapy and O₂ support therapy.

Despite an ordinary wound healing, swallowing rehabilitation was delayed due to patient's isolation and limited access to his room. A cuffed tracheal tube was maintained to limit saliva aspiration, for its related risk of pneumonia, and to optimize possible O₂ support therapy. The patient underwent daily blood tests inclusive of C-reactive protein (CRP), D-dimer, LDH and procalcitonin (PCT), and serial chest X-rays, which showed progressive improvement. Naso-oro-pharyngeal samplings were repeated on the 14th and 20th post-operative days (p.o.d.) and turned up positive both times.

Following a brief initial consultation on the 3rd p.o.d., bedside logopaedic rehabilitation was resumed only the 10th p.o.d., when an uncuffed tracheal tube was placed and plugged. This was later removed on the 14th p.o.d., together with the nasogastric tube. The usual functional endoscopic evaluation of swallowing on the 6th p.o.d. was avoided. After being completely afebrile for more than 72 h, in accordance with the infectious disease specialist, the patient was discharged on the 23th p.o.d., with a strict indication to quarantine, daily control of temperature and oxygen saturation, blood tests every 48 h and repetition of nasopharyngeal swab in 2 weeks. Moreover, psychological progress was monitored by the same psycho-oncologist who had offered daily consultations during the hospitalization.

Based on the final histologic report, the oral tongue squamous cell carcinoma was classified as pT2 pN3b G3 R0 with vascular and perineural invasion. The clinical case was discussed in the multidisciplinary Tumor Board and exclusive adjuvant radiotherapy was proposed. Despite the extranodal extension of disease, which is proven to worsen prognosis in head and neck cancers [3], chemotherapy was deemed contraindicated because of the unpredictable effect in a patient with an unknown post-viral immune reactivity.

The management of COVID + oral cancer patients present a unique challenge because it demands that we deal with their upper aerodigestive airways during the whole perioperative course. This crucial aspect calls for some thoughtful considerations.

The patient's hospitalization was about two weeks longer than

usual, although recovery was regular and he did not present respiratory symptoms. Need for easy access to the airways and deferral of rehabilitation postponed the removal of tracheal and nasogastric tubes. Both these educated delays made our clinically delicate patient more liable to nosocomial infections, while concurrently exposing caregivers and other patients to possible contagion. Were they good judgements in the first place? Did the tracheal tube help in preserving the pulmonary function of a COVID+ obese patient or did it simply increased droplet exposure?

What is worse, droplet isolation came with patient's psychophysical isolation as well. The prolonged lack of phonation, due to the cuffed tracheal tube, further worsened his social detachment from healthcare personnel and relatives and/or friends, whose visits were suspended. Though concerned with clinical parameters, physicians should never underestimate the psychological burden of oral post-surgical disabilities and its possible consequences on patients' recovery and long-term quality of life [4]. Is it time to implement our daily care with remote-controlled technologic devices to check on patients' wellbeing?

Last but not least, the patient's adjuvant treatment was modified in light of the unpredictable response to chemotherapeutic drugs. Once again, was this clinical modification of a well-grounded therapy justified? Or else, were we too cautious for side effects at the expense of an aggressive disease in a young and otherwise healthy patient?

Evidence-based medicine should be the common ground for patients' care, but when evidence is lacking, such is for COVID-19, guidelines and protocols have to be clinically tailored on patients' requirements. Physicians should always balance costs and benefits of each treatment, either added or withdrawn, and, meanwhile, questions like ours may likely remain unanswered. There is a compelling need for data about COVID-19 in oncologic patients in order to educate future indications and decisions [5].

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Declaration of Competing Interest

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References

- [1] Amin MB, Edge SB, American Joint Committee on Cancer. *AJCC cancer staging manual*. 8th ed. Switzerland: Springer; 2017.
- [2] Ansarin M, Bruschini R, Navach V, et al. Classification of GLOSSECTOMIES: Proposal for tongue cancer resections. *Head Neck* 2019;41(3):821–7. <https://doi.org/10.1002/hed.25466>.
- [3] Bernier J, Cooper JS, Pajak TF, et al. Defining risk levels in locally advanced head and neck cancers: a comparative analysis of concurrent postoperative radiation plus chemotherapy trials of the EORTC (#22931) and RTOG (# 9501). *Head Neck* 2005;27(10):843–50. <https://doi.org/10.1002/hed.20279>.
- [4] Chen SC, Huang BS, Hung TM, et al. Swallowing ability and its impact on dysphagia-specific health-related QOL in oral cavity cancer patients post-treatment. *Eur J Oncol Nurs* 2018;36:89–94. <https://doi.org/10.1016/j.ejon.2018.07.002>.
- [5] Collaborative C. Global guidance for surgical care during the COVID-19 pandemic. *Br J Surg* 2020. <https://doi.org/10.1002/bjs.11646>.

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