

COMMENTARY

Skin cancer triage and management during COVID-19 pandemic

The worldwide medical community is striving to pursue the most appropriate clinical choices in the worst event of pandemic of the modern times,¹ with over 1 million patients affected by COVID-19 (i.e. swab positive patients with or without symptoms) reported so far.² In this context, the aim of the ideal management of cancer patients is to achieve the best possible balance between the two different issues to be considered, which include the risk of cancer progression and the risk of infectious disease. In detail, the risk to develop COVID-19 disease in the setting of oncological patients can be stratified into three scenarios: (i) to prevent a patient with advanced skin cancer who is COVID-19 negative to be exposed to viral infection; (ii) to prevent a patient with advanced skin cancer who is COVID-19 positive to infect the health professionals; (iii) to prevent a patient with advanced skin cancer COVID-19 positive to infect other patients. In Italy as well as in Europe, since the beginning of March 2020, we are in the front line of the pandemic and therefore we felt that it might be useful and ethical to share how we faced these issues.^{3,4}

We suggest practical recommendations about follow-up and treatment of skin cancer patients during the COVID-19 pandemic. Our University Hospital is one of the largest COVID-19 referral Centre in Italy and, at the same time, one of the largest

Italian Cancer Centres. The skin multidisciplinary tumour board (S-MDTB), which is composed of Dermatologists, Radiation Oncologists, Medical Oncologists, Surgeons, Pathologists, Molecular pathologists, Plastic Surgeons, Gynaecologists, Ophthalmologists and Maxillofacial surgeons, immediately discussed the drawbacks and possible solutions for the best therapeutic strategy in the management of skin cancer patients. To tackle the problem, a three-step strategy has been proposed by the S-MDTB including: (i) a literature search on this topic, performed by a specific multidisciplinary taskforce; (ii) a dedicated working group which organized two task-meetings for an in-deep discussion regarding the internal policy; (iii) approval of the internal policy proposal by three senior representative (KP, VV and GT) of the Institutional Comprehensive Cancer Centre (CCC). In details, three members (BF, ER, LDR) of the S-MTDB coordinated the Task Force to perform an independent systematic research (terms used to perform the search included: skin cancer and COVID-19) on the subject on the main scientific databases and engines (PubMed, Scopus, Embase, Google Scholar, Cochrane, ResearchGate). Afterwards, the working group (LT, ADS, GS, SG and FF) met to discuss the possible solutions and proposed to reduce the frequency of the weekly meetings and how to manage the initial and follow-up visits as well as treatments of patients. Finally, the senior members of the S-MTDB (VV, GT and KP who is the Chair of the Tumour Board) decided to confirm and officially approve the proposal within the frame of the CCC.

Table 1 Management strategy for melanoma

Patient setting	Discontinuation or delay has an impact on prognosis	COVID-19 negative patients	COVID-19 positive patients
First visit (for clinically suspicious lesions)	High	No delay	Choice is based on individual patients (main criteria: age and flat or nodular melanoma)
Surgery (sentinel lymph node biopsy)	High	No delay	Surgery is scheduled according to the availability of operating rooms suitable for COVID-19 positive
Radiotherapy (palliative)	High	No delay	Consider medication approach in case of pain or dedicated COVID-19 positive radiotherapy pathways
Systemic adjuvant therapy	Medium	Choice is based on patient's prognosis, age and comorbidities	No treatment
Systemic therapy (metastatic setting)	High	Initiate or continue treatment	Delay treatment
Follow-up with diagnosis of PD	High	No delay	Choice is based on individual patients
Follow-up of negative patients	Low	Delay or consider telemedicine†	Delay treatment

PD, progressive disease; SNB, sentinel node biopsy.

†Evaluate the possibility to perform a telemedicine consultation (teleconference system or only medical reports including photographic documentation) if there are no side effects or persistence/relapse of disease.

Table 2 Management strategy for advanced squamous cell carcinoma

Patient setting	Interruption or postponed impact on prognosis	COVID-19 negative patients	COVID-19 positive patients
First visit (for clinically suspicious)	High	No delay	Choice is based on individual cases
Surgery	High	No delay or consider to switch to radiotherapy	Surgery is scheduled according to the availability of operating rooms suitable for COVID-19 positive patients or consider radiotherapy
Radiotherapy (radical)	High/Medium	No delay (especially for large lesion or palliative setting or facial lesion) In this context, biopsy is not mandatory to confirm clinical diagnosis	Multidisciplinary discussion is based on patient's and lesion's characteristics (site and size) Choices: postpone treatment or use hypofractionated radiotherapy schedule or systemic therapy Consider dedicated COVID-19 positive radiotherapy pathways
Radiotherapy (adjuvant)	Medium/Low	Choice is based on patient's (age, comorbidities) and lesions's characteristics (location and size)	Delay treatment
Systemic therapy (locally advanced or metastatic setting)	High	No delay	Delay treatment
Follow-up with diagnosis of PD	High	No delay	Choice is made on a patient-by-patient basis
Follow-up of negative patients	Low	Delay or consider virtual visit†	Delay

PD, progressive disease.

†Evaluate the opportunity to perform a virtual visit (by teleconference system or only documentation evaluation including pictures) if there are no side effects or persistence/relapse of disease.

Table 3 Management strategy for advanced basal cell carcinoma

Patient setting	Interruption or postponed impact on prognosis	COVID-19 negative patients	COVID-19 positive patients
First visit	Medium/Low	Delay or consider telemedicine†	Delay or consider telemedicine†
Surgery	Medium	Delay or consider to switch to radiotherapy or systemic therapy	Scheduled according to the availability of COVID-19 positive operating rooms or consider to switch to radiotherapy
Radiotherapy (radical)	Medium/Low	Multidisciplinary discussion based on the lesion size and location (priority for face lesion) (postpone or ipofractionated radiotherapy schedule or systemic therapy) Consider no biopsy (clinical diagnosis)	Multidisciplinary discussion based on the lesion size and location priority for face lesion (postpone or ipofractionated radiotherapy schedule or systemic therapy) Consider dedicated COVID-19 positive radiotherapy pathways
Radiotherapy (adjuvant)	Low	Choice based on patient's prognosis, age, comorbidities and the location (priority for face lesion)	Delay treatment
Systemic therapy (locally advanced or metastatic setting)	High	No delay	Delay treatment
Follow-up with diagnosis of PD	High	No delay	Delay or consider virtual visit†
Follow-up of negative patients	Low	Delay or consider virtual visit†	Delay treatment

PD, progressive disease.

†Evaluate the opportunity to perform a virtual visit (by teleconference system or only documentation evaluation including pictures) if there are no side effects or persistence/relapse of disease.

Regarding the literature search, no specific papers about the topic were identified. Therefore, the proposal was to meet twice monthly instead of once weekly, with the following rules: (i)

only one specialist for each discipline can be physically present at the tumour board Meeting (no residents allowed); (ii) the room identified to hold the meeting allows to have at least 1.5 m

of distance among the participants; (iii) all other participants can take part to the meeting through a dedicated teleconference platform that guarantees the audio-video participation of doctors and sharing of radiological images, photographic documentation and medical records; (iv) the possibility to gather the S-MDTB for urgent cases before the scheduled meetings through teleconference.

As for the management of the clinical workload, the S-MDTB decided to identify three major classes of skin tumours according to their biological aggressiveness, that is, advanced Melanoma and advanced Squamous Cell Carcinoma (SCC) and Basal Cell Carcinoma (BCC).

The main recommendations for patients' management are reported in Tables 1–3 respectively.

A major limiting factor in our daily practice is the reduced number of available anaesthetists and operating rooms, with the consequent need to elaborate a patients' priority list according to individual oncological prognosis, health condition and comorbidities. In case of symptomatic patient or suspected SARS-CoV-2 infection, the recommendation is to wait until swab result is ready (12–24 h) and act according to the result.

We use a 'triage' colour system to better identify the different situations:

- Red: The COVID-19 risk might be higher than the oncological risk. In this case, we postpone the patient's visit or treatment.
- Yellow: The COVID-19 risk might be high for patients and health care professionals, and the final decision takes into account the feasibility of required procedures, the oncological risk and patient's age and comorbidities on a patient-by-patient basis. The S-MDTB may decide to postpone the visit or therapy or switch to other type of treatments.
- Green: The COVID-19 risk is less than the oncological risk (i.e. a patient with a clear-cut melanoma or a patient with advanced skin cancer under systemic treatment or radiotherapy): the patient must be treated or continue his/her treatment.
- White: The COVID-19 risk is low, and the delay of treatment does not considerably affect the prognosis – the team discusses with the patient the alternative therapeutic approaches, which may represent the best option during the pandemic and possible schedule time.

We therefore propose that the oncological risk and the risk of SARS-CoV-2 infection need to be considered and balanced in order to provide a weighted and controlled strategy to advanced skin cancer patients. A useful approach, as already suggested by other authors, is to identify the different classes of priorities, both for the patients and for health professionals.^{5,6} Only a few national and international societies have released specific recommendations for skin cancer patients.⁷ It is important to underline that in order to consider patients to be COVID-19 negative

they have to be asymptomatic and with no history of previous exposure, while in case of symptoms or history of previous exposure it is necessary to confirm the negativity with a swab⁸ based on the internal Hospital and national recommendation.⁹


The clinical activities should be managed in a different way for patients COVID-19 positive. Specific clinical conditions must be evaluated on an individual basis (e.g. young patient with invasive melanoma requiring sentinel node biopsy) discussing the priority list of operating rooms in case of limited access or limited availability of anaesthetists. When surgical treatment for advanced SCC or BCC is unfeasible, radiotherapy should be considered as an alternative option, mainly for elderly patients. As far as follow-up visits are concerned, they could be managed by implementing a dedicated system of telemedicine unless the patient reports side effects, relapse or worsening of disease, which might instead require access to the Hospital. Notably, the Italian Medicines Agency (AIFA) has facilitated the bureaucratic procedures allowing cancer patients under treatment with oral anti-tumour drugs to directly collect the medications by the Pharmacy Hospital without medical prescription for the next 3 months. In addition, due to the lockdown, the Italian Civil Protection offers a home drug delivery service available throughout the entire Country.

For patient who need to come to the Hospital for the cure, some rules must be abided: (i) only patients and no caregivers are allowed to enter the Hospital, (ii) patient's body temperature is checked at the main entrance of the Hospital or at the Department, (iii) each individual in the Hospital must wear a mask and gloves, and must keep at least 1.5 m inter-personal distance.¹⁰

For patients under treatment with radiotherapy or systemic therapy who become COVID-19 positive, the treatment should be discontinued or discussed on an individual basis involving the infectivologists. A unique pathway for COVID-19 positive patients who still need to be treated is under investigation at the Radiology and Radiotherapy Departments of our University.

Acknowledgements

The authors would like to thank the S-MDTB: Roberta Albanese, Mario Balducci, Maria Antonietta Blasi, Erika Valentina De Luca, Barbara Fossati, Simona Fragomeni, Valentina Lancellotta, Alfredo Piccerillo, Pietro Sollena.

L. Tagliaferri,¹ A. Di Stefani,² G. Schinzari,^{3,4} B. Fionda,¹ E. Rossi,³ L. Del Regno,² S. Gentileschi,^{5,6} F. Federico,^{7,8} V. Valentini,^{1,9} G. Tortora,^{3,4} K. Peris,^{2,10,*}  on behalf of the Gemelli Skin-Cancer Multidisciplinary Tumour Board (S-MDTB)

¹Dipartimento di Diagnostica per immagini, Radioterapia Oncologica ed Ematologia - Gemelli ART (Advanced Radiation Therapy), Interventional Oncology Centre (IOC), Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy, ²UOC di Dermatologia, Fondazione Policlinico

Universitario A. Gemelli IRCCS, Rome, Italy, ³Oncologia Medica, Dipartimento di Scienze Mediche e Chirurgiche, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy, ⁴Oncologia Medica, Università Cattolica del Sacro Cuore, Rome, Italy, ⁵Dipartimento Scienze della Salute della Donna, del Bambino e di Sanità Pubblica, Unità di Chirurgia Plastica, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy, ⁶Istituto di Clinica Chirurgica, Università Cattolica del Sacro Cuore, Rome, Italy, ⁷Istituto di Patologia, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy, ⁸Istituto di Patologia, Università Cattolica del Sacro Cuore, Rome, Italy, ⁹Istituto di Radiologia, Università Cattolica del Sacro Cuore, Rome, Italy, ¹⁰Dermatologia, Università Cattolica del Sacro Cuore, Rome, Italy

*Correspondence: K. Peris. E-mail: ketty.peris@unicatt.it

Linked articles: COVID-19 SPECIAL FORUM. *J Eur Acad Dermatol Venereol* 2020; 34: e241–e255.

Conflict of interest

Dr. Tagliaferri has nothing to disclose. Dr. Di Stefani has nothing to disclose. Dr. Schinzari has nothing to disclose. Dr. Fionda has nothing to disclose. Dr. Rossi has nothing to disclose. Dr. Del Regno has nothing to disclose. Dr. Gentileschi has nothing to disclose. Dr. Federico has nothing to disclose. Dr. Valentini has nothing to disclose. Dr. Tortora reports personal fees from Roche, personal fees from BMS, during the conduct of the study. Dr. Peris reports personal fees from Ammirall, personal fees from Biogen, personal fees from Celgene, personal fees from Lilly, personal fees from Galderma, personal fees from Leo Pharma, personal fees from Novartis, personal fees from Roche, personal fees from Sanofi, personal fees from Sun Pharma, personal fees from Sandoz, personal fees from AbbVie, outside the submitted work.

Funding source

None.

References

- 1 Wu Z, McGoogan JM. Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a

report of 72 314 cases from the Chinese Centre for disease control and prevention. *JAMA* 2020; 323: 1239

- 2 European Centre for Disease Prevention and Control. Situation update worldwide. URL <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases> (last accessed: 03 April 2020).
- 3 Spina S, Marrazzo F, Migliari M *et al.* The response of Milan's Emergency Medical System to the COVID-19 outbreak in Italy. *Lancet* 2020; 395: e49–e50.
- 4 Wollenberg A, Flohr C, Simon D *et al.* European Task Force on Atopic Dermatitis (ETFAD) statement on severe acute respiratory syndrome coronavirus 2 (SARS-Cov-2)-infection and atopic dermatitis. *J Eur Acad Dermatol Venereol* 2020; 34: e241–e242.
- 5 Filippi AR, Russi E, Magrini SM *et al.* COVID-19 outbreak in northern Italy: first practical indications for radiotherapy departments. *Int J of Radiat Oncol* 2020. [Epub ahead of print]. <https://doi.org/10.1016/j.ijrobp.2020.03.007>
- 6 Radi G, Diotallevi F, Campanati A, Offidani A. Global coronavirus pandemic (2019-nCoV): Implication for an Italian medium size dermatological clinic of a II level hospital. *J Eur Acad Dermatol Venereol* 2020. [Epub ahead of print]. <https://doi.org/10.1111/jdv.16386>
- 7 Società Italiana di Dermatologia medica, chirurgica, estetica e delle Malattie Sessualmente Trasmesse (SIDEmaST). URL <https://www.sidemast.org/blog/coronavirus/> (last accessed: 03 April 2020).
- 8 The Royal College of Radiologists. Coronavirus (COVID-19): cancer treatment documents. URL <https://www.rcr.ac.uk/college/coronavirus-covid-19-what-rcr-doing/coronavirus-covid-19-resources/coronavirus-covid-19-1> (last accessed: 03 April 2020).
- 9 Cancer care Ontario. Pandemic Planning Clinical Guideline for Patients with Cancer. URL https://www.accc-cancer.org/docs/documents/cancer-program-fundamentals/oh-cco-pandemic-planning-clinical-guideline_final_2020-03-10.pdf (last accessed: 03 April 2020).
- 10 Associazione Italiana di Radioterapia e Oncologia clinica (AIRO). Guidance document for risk assessment and management of patients and healthcare professionals in radiation oncology departments during ongoing covid-19 spread. URL https://www.radioterapiaitalia.it/wp-content/uploads/2020/04/LATEST_ENG_AIRO-COVID-19.pdf (last accessed: 03 April 2020).

DOI: 10.1111/jdv.16529