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**The impact of COVID-19 pandemic on non-melanoma skin cancers: report of a Southern Italy referral centre.**

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Dear Editor,

COVID-19 pandemic highly affected the health system all over the world, with negative impact on patients' management, and different preventive measures applied among different centers in order to ensure a continuity of care.<sup>1</sup>

In this context, we read with great interest the articles written by A. Wolinska et al.<sup>2</sup> and by Conde-Taboada et al.<sup>3</sup>, focusing on the impact that COVID-19 pandemic had on non-melanoma skin

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cancers (NMSC) diagnosis, prognosis and management. Particularly, the two reports showed contrasting results on the number of diagnosis of NMSC.<sup>1,2</sup>

Herein, we report the data of our center about the impact that COVID-19 had on NMSC diagnosis, management, and prognosis. Patients referring to our dermatological center affected by NMSCs from March 10<sup>th</sup> 2019 to March 9<sup>th</sup> 2022 were included in the study. Particularly, all newly diagnosed NMSC, histologically confirmed, including basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and other NMSCs were selected and included in the dataset. Enrolled patients were grouped in three different periods: i) P1: pre-lockdown from 10/03/2019 to 09/03/2020; ii) P2: Lockdown and Post-lockdown from 10/03/2020 to 09/03/2021; iii) P3: 1-year after lockdown from 10/03/2021 to 09/03/2022. Age, sex, and tumor stage at the time of diagnosis were recorded for each patient. A total of 6812 patients newly diagnosed NMSCs (4128 males, 2684 females) with a mean age of 63.7 years were enrolled in the study. All data concerning the incidence in the three different periods evaluated and the stage at the time of diagnosis were resumed in Table 1. The three groups were comparable for sex, ages and NMSCs localizations. Interestingly, although the number of BCCs and SCCs were slightly lower in the P2 than P1 and P3, this difference was not statistically significant.

Hence, our results are in line with those reported by Conde-Taboada et al.<sup>3</sup> reporting no significant differences in NMSC features before, during, and after the COVID-19 emergency, but in contrast with the findings reported by A. Wolinska et al.<sup>2</sup>, showing increased rates of both high-risk SCCs and high-risk BCCs from 2019 to 2020.<sup>2,3</sup>

The impact of COVID-19 era had variable effects on NMSCs among different dermatological centers, probably due to the different restrictions and measures applied to fight the emergency among countries.<sup>4,5</sup> As for most of countries, we observed a significant reduction of in-person visits during the lockdown period, except for oncological conditions, which resulted in the development of teledermatology services in order to guarantee a continuity of care for patients, reducing as much as possible the risk of infection.<sup>6</sup>

Although the important restrictions, we were able to continue the activity of our dermatological section, which had, in 2019, the same levels of activity than previous years. This result was possible because we ensured a continuity for both patients already in follow-up, and first visits, giving a continuity also to screening visits.

Our data confirm the importance of screening visits, highlighting how a reduction of the screening campaigns may result in an important negative impact on patients' outcomes, and finally on cost-related treatments. However, further studies and reports are needed to compare our results with a larger sample of patients from other dermatological centers, to confirm our findings and to understand how to better manage future emergency situations, developing new tools to ensure a continuity of cares, such as teledermatology applications in skin cancers.

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	<b>P1</b>	<b>P2</b>	<b>P3</b>	<b>P value</b>
<b>Total NMSC</b>	2269	2223	2320	ns
<b>BCC</b>	1281	1248	1308	ns
<b>Local Advanced BCC</b>	132	121	136	ns
<b>SCC</b>	518	508	528	ns
<b>Locallyadvanced SCC</b>	68	52	67	ns
<b>Metastatic stage (at the time of diagnosis)</b>	18	18	19	ns
<b>OtherNMSC</b>	470	467	483	ns
<b>Multiple NMSCs</b>	898	845	885	ns

**BCC:** Basal Cell Carcinoma

**NMSC:** Non-Melanoma Skin Cancer

**P1 Pre-lockdown:** 10/03/2019–09/03/2020)

**P2: Lockdown and Post-lockdown:** 10/03/2020 – 09/03/2021

**P3: 1-year after lockdown:** 10/03/2021 – 09/03/2022

**SCC:** Squamous Cell Carcinoma

**Table 1.** Features of newly diagnosed non-melanoma skin cancers during the three considered periods