LETTER



Long-term efficacy of telemedicine for patients with locally advanced basal cell carcinoma during COVID-19 pandemic

Dear Editor,

Hedgehog inhibitors (HHI) have been demonstrated to be an effective and safe treatment for advanced basal cell carcinoma (aBCC) not eligible for conventional treatments such as surgery or radiation therapy. Monthly follow-up visits are required after their prescription; specific blood exams, clinical evaluations and adverse events management are recommended in order to assess treatment efficacy.¹ Although, the outbreak of COVID-19 pandemic and the adoption of restrictive measures to prevent virus diffusion have been reasons of treatment discontinuation, the use of telemedicine have spread out in many dermatologic departments reducing treatment discontinuation rate. Telemedicine represented a useful tool for the management of several dermatoses and skin cancer during the pandemic period,^{2.3} however, long-term data on its use for the management of patients with aBCC, treated with the two HHI, sonidegib and vismodegib, are scant.

Objective of our study was to report the long-term results of teledermatology in patients with aBCC attending our Department and treated with Hedgehog inhibitors during a 2-year period (from January 2020 to December 2021). A total of 23 patients (18 males and 5 females with a median age of 76.4 years) were included in the study. 17 out of 23 patients (69.6%) were receiving sonidegib, whereas 6 patients (30.4%) were receiving treatment with vismodegib. Median treatment duration was 5.8 months (range 2-16 months). All patients received a first face-to-face visit after histological diagnosis for HHI prescription. Overall, the majority of patients were responsive to treatment, reporting an objective response rate (complete remission + partial remission) in 78.3% (19/23) of cases. After the first mandatory face-to-face visit, all patients or one of their family members preferred to receive a teleconsultation for their monthly follow-up for a median period of 4.2 months (2-11 months); moreover, they sent clinical photographs and the mandatory blood exams through the mail service of a secure dedicated web platform in order to make the physician able to evaluate their clinical status and decide the therapeutic management. Overall, 73.9% (17/23) of patients received modified treatment scheme based on dose adjustment in order to prolong treatment duration, reduce drug-related adverse events and avoid treatment discontinuation. Only three patients (13%) preferred to

abandon teledermatology service and to continue their in-person follow-up visit. A complete adherence to treatment was generally reported during the pandemic period. Moreover, when the restriction measures were lifted, six patients (26%) continued to prefer telemedicine, when possible. Tele-visits were preferred in those patients not experiencing drug-related adverse events or receiving adjusted dosing regimens.⁴

Telemedicine has revolutionized the management of several health conditions during the pandemic period; in the future, this method may represent a useful strategy to reduce waiting lists, minimizing treatment delays, but also a valid weapon in patients living in rural areas or who cannot attend face-to-face visit due to personal problems or limitations.⁵ Moreover, adding dermoscopic pictures to the clinical ones, during the teleconsult, may increase the accuracy of bcc monitoring.⁶ However, clinicians should always keep in mind the risk of telemedicine using in patients receiving oral therapies. Further studies evaluating the long-term results of teledermatology in subject with laBCC undergoing treatment with Hedgehog inhibitors are still needed.

AUTHOR CONTRIBUTIONS

Alessia Villani: data curation, formal analysis, investigation, visualization, writing-original draft preparation, writing-review & editing. Luca Potestio: data curation, formal analysis, investigation, visualization, writing-original draft preparation, writing-review & editing. Gabriella Fabbrocini: data curation, formal analysis, investigation, visualization, writing-original draft preparation, writing-review & editing, supervision. Francesca di Vico: data curation, formal analysis, investigation, visualization, writing-original draft preparation, writing-review & editing. Claudia Costa: data curation, formal analysis, investigation, visualization, writing-original draft preparation, writing-review & editing. Massimiliano Scalvenzi: data curation, formal analysis, investigation, visualization, writing-original draft preparation, writing-review & editing. Massimiliano Scalvenzi: data curation, formal analysis, investigation, visualization, writing-original draft preparation, writingreview & editing.

ACKNOWLEDGMENT

Open Access Funding provided by Universita degli Studi di Napoli Federico II within the CRUI-CARE Agreement.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

> Alessia Villani Luca Potestio Gabriella Fabbrocini Francesca di Vico Claudia Costa Massimiliano Scalvenzi

Section of Dermatology, Department of Clinical Medicine and Surgery, University of Naples Federico II, Napoli, Italy

Correspondence

Alessia Villani, Section of Dermatology, Department of Clinical Medicine and Surgery, University of Naples Federico II, Via Pansini 5, 80131 Napoli, Italy. Email: ali.vil@hotmail.it

ORCID

Alessia Villani D https://orcid.org/0000-0001-6430-268X Luca Potestio D https://orcid.org/0000-0001-5940-0592 Gabriella Fabbrocini D https://orcid.org/0000-0002-0064-1874

REFERENCES

- Villani A, Cinelli E, Fabbrocini G, Lallas A, Scalvenzi M. Hedgehog inhibitors in the treatment of advanced basal cell carcinoma: risks and benefits. *Expert Opin Drug Saf.* 2020;19(12):1585-1594.
- 2. Herwaldt LA, Smith SD, Carter CD. Infection control in the outpatient setting. *Infect Control Hosp Epidemiol*. 1998;19(1):41-74.
- Villani A, Megna M, Scalvenzi M, Fabbrocini G, Ruggiero A. Teledermatology and chronic skin diseases: real life experience in a southern Italian dermatologic Centre. *Dermatol Ther.* 2020;33(6):e13839.
- Scalvenzi M, Costa C, Cappello M, Villani A, Reply to Woltsche N, et al. Managing adverse effects by dose reduction during routine treatment of locally advanced basal cell carcinoma with the Hedgehog inhibitor vismodegib: a single-Centre experience. J Eur Acad Dermatol Venereol. 2019;33(4):e145-e147.
- Lukas H, Xu C, Yu Y, Gao W. Emerging telemedicine tools for remote COVID-19 diagnosis, monitoring, and management. ACS Nano. 2020; 14(12):16180-16193.
- Tognetti L, Fiorani D, Russo F, et al. Teledermatology in 2020: past, present and future perspectives. *Ital J Dermatol Venerol*. 2021;156(2): 198-212.