

DLBCL was made. The patient complained of diplopia and left eyelid ptosis 8 days after the biopsy. Magnetic resonance imaging detected a small tumour, a suspicious DLBCL lesion, in the left cavernous sinus (Fig. 2f). The dose-attenuated CHOP regimen with standard dose of rituximab was initiated. Besides, radiotherapy (40 Gy) targeting the brain nodule was performed. Through combined modality therapy, the nodules in the left axilla and left cavernous sinus disappeared.

This is the first case report of DLBCL developed shortly after BNT162b2 vaccination, although the recurrence of remitted T-cell lymphoma cases has been reported.<sup>1,2</sup> Reactive lymphadenopathy after COVID-19 vaccination has been repeatedly reported; hence, both cases were initially suspected as temporal LN swelling. The influence of vaccination on the development of DLBCL is uncertain. BNT162b2 vaccines have been reported to induce a cytokine signature featuring IL-15, IFN- $\gamma$ , CXCL10 and IL-6.<sup>3</sup> On the contrary, the elevation of these cytokines was observed in the sera of patients with pretreated DLBCL,<sup>4</sup> suggesting some roles of these cytokines in the growth or survival of DLBCL. Thus, it might be conceivable that pre-existing or sub-clinical DLBCL may rapidly grow in a specific condition induced by BNT162b2 vaccination. Nevertheless, the precise mechanism regulating the induction of DLBCL by this vaccination must await further investigations, including interaction between lymphoma cells and tumour microenvironment, genetic instability and so on.<sup>5,6</sup>

In conclusion, DLBCL may rapidly grow after BNT162b2 vaccination. Dermatologists should pay attention to enlarging LNs or mass near the injection site of BNT162b2 vaccine. This case report might become an emergent alert for the candidates receiving anti-COVID-19 vaccination.

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The patients in this manuscript have given written informed consent to the publication of their case details.

### Conflicts of interest


None declared.

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### Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## Skin cancer and COVID-19: was the diagnosis safeguarded by teledermatology? a study on 1229 cases

Editor

During COVID-19 pandemic, dermatology practices are shifting to teledermatology (TD).<sup>1,2</sup> The objective of our study is to assess the effect of the first vs second COVID-19 waves on skin cancer (SC) requests via TD.

The study was conducted in a dermatology department, characterized by a store-and-forward TD between health care professionals (HCPs) and dermatologists. All TD requests during the first (March and April 2020) and second (October and November 2020) COVID-19 waves in France were retrieved and compared with the corresponding period in 2019. Collected data included the provenance and diagnoses of patients. The provenance was divided into institutions [long-term care facilities (LTCF) and hospitals] and non-institutions (private physician clinics). Diagnoses of patients were divided into SC, inflammatory dermatoses, infectious dermatoses, cutaneous drug adverse reactions and 'other' diagnoses. The proportions of these diagnoses during both COVID waves in 2020 were compared with the corresponding months in 2019. For SC diagnoses, institution and non-institutions requests during both waves were also compared with the same period in 2019.

First wave (March and April 2020 vs 2019): The total number of requests was 583 in 2019 vs. 629 in 2020. Skin diagnoses are represented in Fig. 1. In ‘other’ diagnoses, 32.1% of these diagnoses (55/171) were COVID-19-related cutaneous lesions, mostly chilblains (70.9%). Regarding SC, the comparison of institution requests and non-institutions requests in 2020 vs 2019 is represented in Fig. 2.

Second wave (October and November 2020 vs 2019): (Figs 1 and 2).

The total number of requests was 547 in 2019 vs. 600 in 2020. In ‘other diagnoses’, 11.4% of these diagnoses (10/87) were COVID-19-related cutaneous lesions.

In total, during the first wave, there was significantly fewer concern in skin cancer and more concern in ‘other’ skin diagnoses, which included COVID-19-related cutaneous signs. Both institutions and non-institution requests for SC significantly

decreased. During the 2nd wave, there was no significant difference in any type of skin diagnosis.

During the first pandemic wave, LTCF physicians seemed more concerned about COVID-19 than other health issues. This is because outbreaks of infection developed rapidly in LTCF<sup>3</sup> and elderly are more vulnerable to infections and at a higher mortality risk. Since confinement was essential for COVID-19 control<sup>1</sup> and public health endorsed social distancing, less patients consulted their general physicians (GPs). Moreover, physicians cancelled consultations to avoid virus transmission.

During the first wave, there was a decrease in overall in-person oncology referrals.<sup>4</sup> Unexpectedly, even though access to TD expertise was possible, there was also a decrease in SC requests. The delay in SC diagnosis was manifested by an increase in Breslow thickness in primary melanomas seen after the first COVID-19 lockdown.<sup>5</sup>

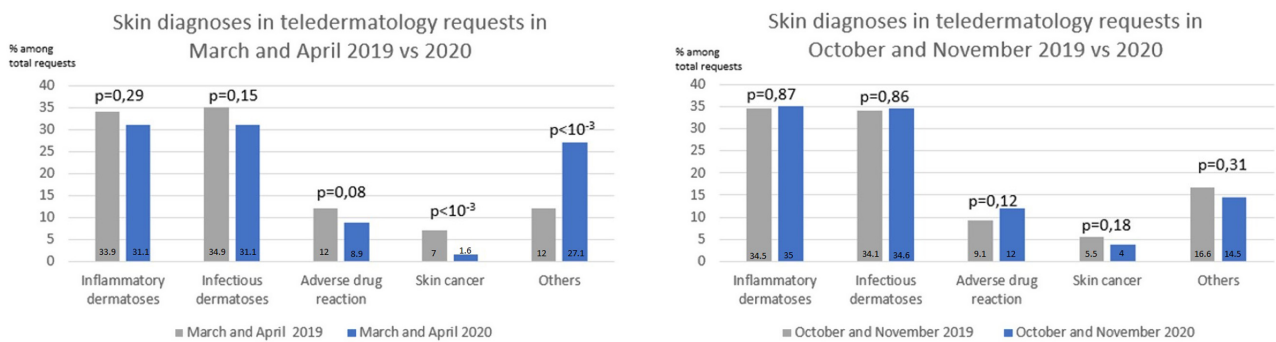


Figure 1 Skin diagnoses in teledermatology requests during both COVID-19 waves in 2020 vs 2019.

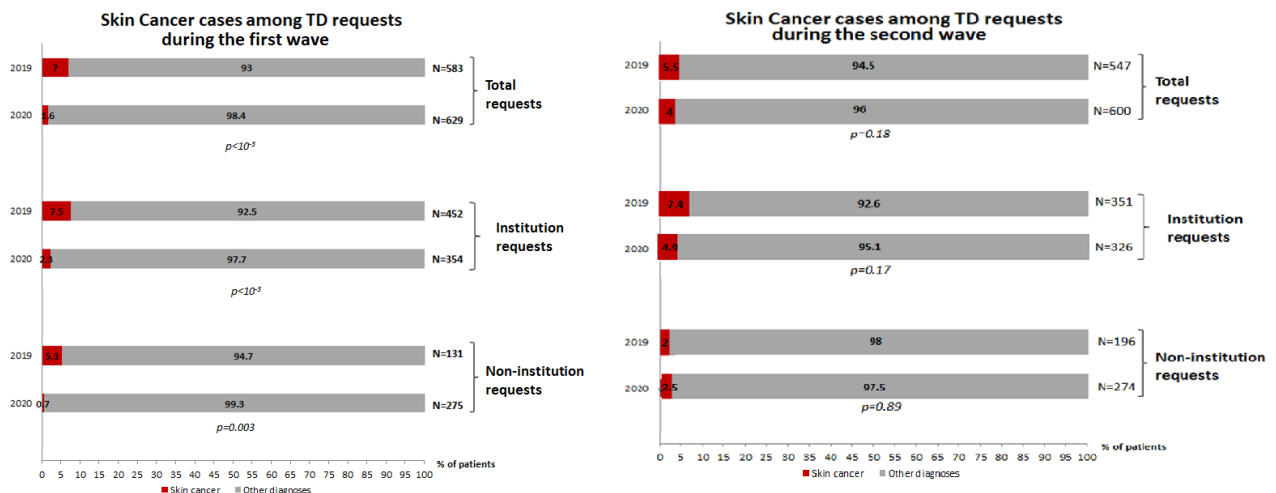


Figure 2 Skin cancer cases among teledermatology (TD) total requests, institution requests and non-institution requests during both COVID-19 waves in 2020 vs 2019.

Shortly after the first pandemic, all health care professionals were urged to shift their activity to telemedicine, which has become a cornerstone for continuity of care.<sup>6,7</sup> Consultations were less likely to be cancelled. Moreover, a balance was made between medical attention to COVID patients and regular attention to other patients. Contrary to the persistence of a general decline in skin cancer diagnoses during the second wave,<sup>6,8,9</sup> SC diagnosis through TD showed no decrease compared to 2019.

Since TD has already shown efficacy in diagnosis and management of SC,<sup>10,11</sup> it is important for physicians to scale the use of TD in order to prevent unnecessary in-person visits and help schedule specific appointments for vulnerable patients. Prompting doctors to use TD for SC diagnosis and SC pathway organization would prevent increased morbidity, mortality and health care costs.

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### Conflicts of interest

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### Data availability statement

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## SARS-CoV-2 mRNA booster vaccine-associated lichenoid drug eruption

### Editor

A 53-year-old otherwise healthy gentleman was referred for a dermatological opinion in view of a 2 day history of rapidly progressive, centrally eroded, erythematous, annular plaques involving the malar cheeks, eyelids and lips (Fig. 1a). The exanthem was mildly pruritic and associated with periorbital oedema (Fig. 1b). The facial lesions were accompanied by a single, discoid patch exhibiting central dusiness on the left shoulder (Fig. 1c). The trunk, oral and genital mucosae were otherwise completely spared and the patient was systemically well and cardiovascularly stable. The patient had received the booster (third) Pfizer-BioNTech (Pfizer, Inc., New York City, NY, USA) SARS-CoV-2 mRNA vaccine 3 days prior to the cutaneous eruption. The patient was administered the first and second COVID-19 vaccinations (both Pfizer-BioNTech-CoV-2 mRNA) 6 months before, 3 weeks apart. He had not experienced any cutaneous (or systemic) reactions to the first two doses.

Given the recent history of vaccination and the clinical presentation, an incipient severe cutaneous adverse reaction (SCAR) and erythema multiforme major were considered as the main differential diagnoses. The patient was prescribed prednisolone 0.5 mg/kg/day and lubricant ophthalmic drops (after review by an ophthalmologist). Serological testing, including a complete blood count with differential, biochemical profiling as well as Herpes Simplex PCR and *Mycoplasma* IgG and IgM were unremarkable.

An incisional biopsy taken from the lesion on the shoulder revealed a perivascular and interstitial lymphohistiocytic inflammatory infiltrate in the upper dermis, which also featured occasional eosinophils (Fig. 2). Endothelial swelling was appreciated