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Published in:
Dermatologic Therapy

DOI (link to publication from Publisher):
10.1111/dth.14576

Publication date:
2021

Document Version
Accepted author manuscript, peer reviewed version

Link to publication from Aalborg University

Citation for published version (APA):
Searle, T., Al-Niaimi, F., & Ali, F. R. (2021). Potential hazards posed by cryotherapy during the COVID-19 era. *Dermatologic Therapy*, *34*(1), Article e14576. https://doi.org/10.1111/dth.14576

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Accepted Article

Letter

Potential hazards posed by cryotherapy during the COVID-19 era

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Word count: 398 Table count: 0 Figure count: 0

Conflicts of interest: none

Short title: Cryotherapy during the COVID-19 era

Funding: None

Data Availability: None to declare

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/dth.14576

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Accepted Article

Consent for publication: All authors have approved this final submitted version of the manuscript and consent to its submission for consideration of publication

Conflicts of interest: none

Cryotherapy is a technique commonly employed by dermatologists in outpatient clinics, particularly for viral warts and treatment of keratinocyte skin cancers. Whilst cryotherapy is rapid and inexpensive to undertake in an outpatient clinic, there are widely recognised risks including pain, blistering, scarring, discoloration (frequently hypopigmentation) and alopecia. Despite multiple articles discussing the risks posed by other treatment modalities,[1] there remains a lack of guidelines failed to discuss the risk posed by cryotherapy in the COVID-19 era.

In an article by Ross and colleagues,[2] 11 patients undergoing laser hair removal were treated with a 755 or 1064nm millisecond-domain laser combined with cryogen spray, refrigerated air (RA) or contact cooling with sapphire (CC). Cryogen spray produced large amounts of plume with over 400,000 parts per cubic centimetre, compared with 3,500 parts for contact cooling and 35,000 for the RA. This laser plume is a potential hazard to dermatology practitioners, not only because of the possible hazardous chemicals produced in the plume, but also because of the risk of infection.[3] There have been no reported cases of COVID-19 transmission from surgical plumes. However, coronavirus particles' minute size (50–200 nm),[4] the identification of particles outside of the respiratory tract in blood, peritoneal fluid and faeces,[5,6] as well as the high transmissibility of the disease, makes the possibility of virus presence in inhaled fumes, from the use of cryosurgical spray, highly

conceivable.[3,7] Whether targeted techniques such as intralesional cryotherapy[8] may reduce this risk remains to be seen.

In July 2020, following concern that cryotherapy of anogenital warts may be associated with aerosolization of COVID-19 due to coronavirus presence in faeces, and following consultation with infection control experts, the British Association for Sexual Health and HIV (BASSH) released a position statement[9] concluding that cryotherapy is not an aerosol generating procedure (AGP) and therefore the risk of cryotherapy to healthcare workers is limited to that associated with the inability to maintain social distancing. However, dermatologists frequently undertake cryotherapy on high risk sites such as the nasal and perioral skin and mucosae where aerosolization of coronavirus particles is more plausible than for extra-facial sites.

We feel diligent use of personal protective equipment and the consideration of smoke extractors might also be a necessary precaution for dermatologists performing cryotherapy particularly on high risk sites (such as the nasal and perioral skin and mucosae) in the present climate until sufficient safety data emerges to refute this.

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