Anti-NXP2 Ab was first reported as anti-MJ Ab related to juvenile DM [2], and the antigen of anti-MJ Ab was subsequently identified as nuclear matrix protein NXP2 [3]. Approximately 20% of juvenile DM is positive for anti-NXP2 Ab, whereas only 1.6% of adult DM is positive. The clinical characteristics of anti-NXP2 Ab-positive DM in adult-onset cases include muscle weakness and skin eruptions. On the other hand, ILD is rare. Furthermore, in adult-onset myositis, 29% of patients developed malignant tumours within three years of diagnosis and most progressed [4]. Although there is a correlation between the progression of cancer and exacerbation of skin and/or muscle symptoms in DM, whether clinical symptoms are improved by tumour excision depends on the patient. It is unclear whether tumour excision can influence the autoAb status. Currently, it is not possible to assess a correlation between the titre of anti-NXP2 Ab and disease activity, since an ELISA system to detect anti-NXP2 Ab has not been established. This is the first case in which anti-NXP-2 Ab disappeared after tumour excision. The association between the pathophysiology of DM and skin and muscle involvement, presence of malignant tumours, and autoAb production is of interest. Further accumulation of cases is needed to address this issue. ■

Disclosure. Conflicts of interest: none. Financial support: none.

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doi:10.1684/ ejd.2020.3858

Ocethidine disinfection during the SARS-CoV-2 pandemia

In view of the current worldwide COVID-19 outbreak with still rising cases outside of China, the World Health Organization (WHO) suggests personal protective measures in order to attenuate transmission of the virus. Along with good respiratory hygiene, distancing to others and personal isolation in case of respiratory symptoms, the WHO strongly recommends frequent washing of hands and alcoholic disinfection [1]. For hand disinfection, the Robert-Koch-Institut (RKI, German Public Health Institute) approved a list of mostly alcoholic, but also other disinfectants, such as halogens and peroxides [2]. As Sars-CoV-2 is an enveloped virus, it is particularly susceptible to lysis of its lipid membrane, which inactivates it. Hence, the mechanism of action of most hand disinfectants is solubilization of the virus lipid membrane by alcohol (mostly ethanol and 1- and 2-propanol).

We would like to propose the use of ocethidine-containing disinfectants (mostly in combination with synergistically-acting phenoxyethanol), as they are recommended by the RKI for disinfection of the skin of newborns, but are not mentioned in the list outlined above.

Upon an exposure time of 60 seconds, ocethidine-containing disinfectants act against enveloped viruses in a similar way to alcohols disinfectants [3] and also display additional benefits; they do not burn irritated skin, are non-allergenic and do not penetrate the skin or act as penetration enhancers, like alcohols.

The most striking benefit is the remanence effect (prolonged biocidal activity on the skin) of this cationic detergent-like molecule. Compared to isopropanol disinfection alone, the addition of ocethidine demonstrated a restriction of bacterial growth on the skin of up to 48 hours [4]. The molecule, which is also active against enveloped viruses, therefore demonstrates a long-lasting effect on the skin. Additionally, ocethidine (0.1%) plus phenoxyethanol (2%) can be dissolved in water, making the preparation of large amounts easier in cases of global emergencies. For comparison, to prepare 10 litres of 70% (v/v) isopropanol, one needs to transport 7 litres (approximately 5.5 kg) of isopropanol (100%), whereas for 10 litres of ocethidine disinfectant, only 210 g of chemicals are needed (<4% the weight), the latter also being less flammable.

In summary, the use of ocethidine-containing disinfectants should be considered by the general population, mainly for prolonged self-protection, contrasting with the very short-acting alcoholic disinfectants, but also in order to reduce viral contamination of public surfaces (e.g. door handles, staircase handrails, and elevator buttons associated with public transport), where the virus remains stable for hours to days [5]. ■

Disclosure. Conflicts of interest: none.

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PCR-based diagnosis of *Sporothrix* infection using DNA from paraffin-embedded skin specimens in previously undiagnosed cases

Definitive diagnosis of dermatomycosis requires identification based on culture of focal eruption samples. However, it is occasionally necessary to also consider culture-negative cases and cases without culture. PCR may aid in the diagnosis of such cases. However, although nested-PCR (involving two rounds of PCR amplification) is highly sensitive, it is liable to contamination, which may affect the interpretation of results [1].

We previously reported identification of *Sporothrix* based on extraction of DNA from formalin-fixed and paraffin-embedded (FFPE) tissues using nested PCR [1]. The sensitivity and specificity of this method was 100% and 98.7%, respectively (sample size: culture-positive n=52, controls n=79). Herein, we present a patient whose biopsy was not submitted for culture because the skin lesion was a suspected cutaneous neoplastic lesion based on clinical and histopathological investigation, however, sporotrichosis was subsequently detected by PCR. An 85-year-old man was referred to our department because of an irregularly raised, crusted mass on the back of his right hand (figure 1A). The lesion was reported to have gradually increased in size about two months and measured 3.5 cm. A histopathological study of the skin biopsy at the first visit revealed acanthosis, pseudo-cancerous proliferation between epidermis to dermis, and inflammatory cells (lymphocytes, histiocytes, neutrophils, and giant cells) in the dermis (figure 1B). Nuclear division was observed in a proportion of the proliferating epidermal cells (figure 1C). The clinical and initial pathological findings suggested a highly differentiated squamous cell carcinoma-like lesion. The entire lesion was excised and the skin was surgically grafted. A specimen was not sent for culture. However, histopathological examination of the entire sample showed inflammatory granulation tissue and giant cells, findings suspicious of fungal infection, with no evidence of squamous cell carcinoma (figure 1D, E). Staining with Periodic acid-Schiff (PAS) and Grocott’s methenamine silver (GMS)

![Figure 1](image-url)

**Figure 1.** A) Clinical presentation of the patient with differential diagnosis of cutaneous squamous cell carcinoma. B-E) Histopathological study of the first skin biopsy (haematoxylin and eosin staining). In the sample from the first biopsy, acanthosis, pseudo-cancerous proliferation between epidermis to dermis (arrow), and inflammatory cells (lymphocytes, histiocytes, neutrophils, and giant cells) are present in the dermis (×100) (B), and nuclear division is observed in a proportion of the proliferating epidermal cells (×400) (C). In the entire sample from the second surgery, inflammatory granulation tissue and giant cells (arrow), suggesting a fungal infection, are shown in (D) (×100) and (E) (×400). Fungal elements (arrow) are apparent with Periodic acid-Schiff (F; arrow) (×400) and Grocott’s methenamine silver (G; arrow) (×400). H) Representative PCR-positive results for 7/21 patients (sample No.1 refers to the presented case), whose specimens were not submitted for culture or culture-negative, and who were suspected to have cutaneous sporotrichosis based on histopathological evaluation; the presence of *Sporothrix* is indicated by the presence of the 152-bp fragment (arrow).