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Case report: Nosocomial digital eczema from surface cleansing bleach

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Abstract:

We report the case of a healthcare provider who developed hand eczema, predominantly on the first digit and thumb of the right hand, in association with contact with the surface of a desk and mouse pad at work. The eczema abated on days off and was exacerbated within hours of work. The diagnosis was made of hand eczema from surface cleaning bleach. It was noted that several other healthcare providers had developed similar symptoms. The patient's eczema was confirmed by a dermatologist and was successfully treated with topical triamcinolone and emollient cream to the affected areas. Prevention by adhesive strip band aids to the affected areas of the hand as well as water cleansing to previously bleach-cleansed surfaces has been helpful.

Introduction:

Hand eczema of all types has been on the increase world-wide since late 2019, with the suggestion that this may be related to COVID-19 and associated increased use of strong surface cleansers as well as increased use of hand sanitizer.

Case Presentation:

We report the case of a healthcare provider who developed hand eczema, predominantly on the first digit and thumb of the right hand, in association with contact with a desk and mouse pad at work. The healthcare worker used soap and water cleansing of the hands and so hand sanitizer exposure was not an issue. The eczema abated on days off and was exacerbated within hours of work. The diagnosis was made of hand eczema from surface cleaning bleach. It was noted that several other healthcare providers had developed similar symptoms. The patient's eczema was treated with topical triamcinolone and emollient cream to the affected areas for several hours at night using a non-vinyl glove. Prevention included wiping the desk area, mouse and keyboard with water soaked pads prior to use.

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Discussion:

The case presented represents an example of a larger frame of occupationally related dermatological conditions from chemical exposures.

According to Anderson, there are three types of occupationally related chemical skin exposures: (Anderson)

- 1) Direct skin effect
- 2) Immune mediated effect
- 3) Systemic effects

Surface cleaning bleach as been described as a direct skin effect exposure. (Anderson)

Another direct skin exposure that has been described is hand sanitizer use in some patients.(Batalla, Larson)

In the case presented, the healthcare worker used soap and water cleansing of the hands.

Hand eczema of all types has been on the increase world-wide since late 2019, with the suggestion that this may be related to COVID-19 and associated increased use of strong surface cleansers as well as increased use of hand sanitizer. (Erdem, Guentler, Huang, van der Meer)

Treatment includes standard eczema cream, moisturizer and reduction of contact with the surface bleach. (Agner)

Conclusions:

Hand eczema of all types has been on the increase world-wide since late 2019, with the suggestion that this may be related to COVID-19 and associated increased use of strong surface cleansers as well as increased use of hand sanitizer. Here report the case of a healthcare provider who developed hand eczema, predominantly on the first digit and thumb of the right hand, in association with contact with a desk and mouse pad at work. The healthcare worker used soap and water cleansing of the hands and so hand sanitizer exposure was not an issue. The eczema abated on days off and was exacerbated within hours of work. The diagnosis was made of hand eczema from surface cleaning bleach. It was noted that several other healthcare providers had developed similar symptoms. The patient's eczema was treated with topical triamcinolone and emollient cream to the affected areas for several hours at night using a non-vinyl glove. Prevention included wiping the desk area, mouse and keyboard with water soaked pads prior to use.

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No Conflict of Interest:

There was no funding related to this case report. The authors declare that they have no conflicts of interest.