

SUMMARY OF:

OCCUPATIONAL ALLERGIC CONTACT DERMATITIS CAUSED BY NON-LATEX PROTECTIVE GLOVES: CLINICAL INVESTIGATION AND CHEMICAL ANALYSES

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BACKGROUND

Over a recent period of time operating room personnel, i.e. surgeons and surgical nurses have seen an increase in occupational contact hand dermatitis. It is suspected that the chemistry of the rubber additives found in surgical gloves could potentially be an indicator.

OVERVIEW

The objective of this study was to assess patients that were diagnosed with occupational contact dermatitis due to their gloves. The second part of this study was to evaluate the gloves that they wear, a baseline series, and a rubber series of gloves. A patch test method of was used. The inside and outside of the gloves were analyzed as well.

RESULTS

7 out of 8 patients reacted to cetylpyridinium chloride (CPC). 8 out of 16 patients showed an allergic reaction to thiuram mix and 12 out of 16 patients had an allergic reaction to 1.3-Diphenylguanidine (DPG) CPC and DPG were found on both inside and outside of the glove, but had a stronger concentration on the inside the glove. Most patients had been working for decades in their current occupation and only over the last several months reported hand dermatitis.

CONCLUSION

It is concluded in this study that the change of glove material due to latex allergies to latex -free gloves has unfortunately not lowered the risk of sensitivity to rubber accelerators found in gloves. The rubber accelerator DPG, and CPC, which is a lubricant, was found to be a positive reaction of a potential cause for occupational contact dermatitis.

References 1. Ponten et al., Occupational allergic contact dermatitis caused by sterile non-latex protective gloves: clinical investigation and chemical analyses. *Contact Dermatitis*. 2013 Feb;68(2):103-10. doi: 10.1111/cod.12010. Epub 2012 Dec 4.

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