

Table 3. Ratio of sensitization in a maximization test with dinitrochlorobenzene and propolis

Dinitrochlorobenzene	Propolis	Control
25/25	19/25	0/25

The high sensitization ratio in the dinitrochlorobenzene group was expected. In the propolis group, 76 % of the animals showed a positive reaction to propolis. This finding indicates that propolis should be considered a potent allergen. The present common use of propolis together with its potency as a sensitizer indicate that we may expect an increased number of patients with allergic contact dermatitis to propolis. A warning would be ap-

propriate against this substance which until now has shown no well-documented therapeutic properties. Propolis has recently been marketed in Denmark as caramels and chewing gum.

References

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Contact urticaria from chlorinated swimming pool water

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A healthy 35-year-old sickbay attendant had intermittent urticaria for several years before swimming in swimming pools containing chlorinated water, which was suspected of causing the eruption after 1-5 hours. Swimming in fresh water or sea bathing did not result in urticaria. The swimming pool water contained NaOCl for disinfection. An unexpected contact with a cleansing powder containing NaOCl (Vim + chlorax®) yielded typical contact urticaria after 30 min. Drinking water chlorinated with CaOCl_2 on board ship never caused any trouble.

Open patch tests with new swimming pool water smelling of chlorine were inconclusive; scratch tests however gave strikingly positive results, five control subjects were negative. Routine patch testing (ICDRG) and testing with six chlorine-containing disinfectants were negative.

A triple series of closed patch tests with NaOCl and CaOCl_2 (1.5 %, 1 %, 1 % in aqua)

with readings after 20 and 60 min were negative, but after 3 h very extensive urticaria with Quincke's edema developed. The third series of patches removed at that time did not show a local response.

Chlorinated water contains Cl_2 , HClO and ClO^- ions which are formed on diluting NaOCl in water, and these compounds, possibly after reacting with skin proteins, may be the cause of the urticaria. In a recent review on contact urticaria (Odom & Maibach 1976), no mention is made of chlorinated water. Contact urticaria from chlorinated swimming pool water should be borne in mind in patients suspected of aquagenic urticaria.

Reference

- Odom, R. B. & Maibach, H. I. (1976) Contact urticaria: a different contact dermatitis. *Cutis* 18, 672-676.