

Short Communication

Contact dermatitis in a tracheostomized patient due to a rubber disc

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Key words: allergic contact dermatitis; tracheostomy; rubber disc; rubber chemicals; thiurams; carbamates; guanidines; mercapto mix; allergen replacement; silicone. © Munksgaard, 1998.

Case Report

A total laryngectomy was performed in a 45-year-old non-atopic man because of laryngeal squamous cell carcinoma. A rubber disc was put over the tracheostomy to support the cannula that runs from the trachea to the outside. 8 months after surgery, a pruriginous fissured eczema appeared on the skin around the tracheostomy. We found the following patch tests to be positive, as defined by the ICDRG (Table 1). A latex prick test was negative.

Discussion

As far as we know, this is the first report of allergic contact dermatitis from rubber chemicals (1, 2) involving peritracheostomal skin. Chemical analysis of the disc showed it to be composed of: natural latex, styrene/butadiene rubber, synthetic surfactants, carbamates and mercaptobenzothiazole, phenolic antioxidants, sulfur and zinc oxide. The disc adhesive was composed of an acrylic resin, colophony and titanium. The contact dermatitis in this case was therefore caused by vulcanization accelerators. The skin lesions cleared when the patient stopped using a rubber disc and replaced it with a new silicone (organosiloxane) disc.

Table 1. Positive patch test results

	D2	D4
<i>Allergens</i>		
TRUE Test		
mercaptobenzothiazole	+++	+++
mercapto mix	+++	+++
<i>Rubber series</i>		
tetramethylthiuram disulfide	—	+++
tetraethylthiuram disulfide	—	+++
N-cyclohexylbenzothiazole sulfenamide	+++	+++
dibenzothiazyl disulfide	—	+++
morpholinyl mercaptobenzothiazole	+++	+++
diphenylguanidine	+++	+++
carba mix	+++	+++
<i>Own product</i>		
rubber	+++	+++
adhesive	+++	+++

References

1. Wilson H T H. Rubber dermatitis: an investigation of 106 cases of contact dermatitis caused by rubber. *Br J Dermatol* 1969; 81: 175-179.
2. Cronin E. *Contact dermatitis*. Edinburgh: Churchill-Livingstone, 1980: 714-770.