

Allergopatie cutanee e respiratorie da aziridina polifunzionale

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KEY WORDS

Polyfunctional aziridine hardener; allergic contact dermatitis; occupational rhinitis; occupational asthma

SUMMARY

«Allergic skin and respiratory disease due to polyfunctional aziridine». Background: Polyfunctional aziridine (PFA) hardener is increasingly used in water-based paints and inks as a replacement for organic solvents. Allergic contact dermatitis, contact urticaria, respiratory allergy in occupationally exposed patients with hypersensitivity to PFA are reported. Objectives: The aim was to study a population of adhesive tape printers for occupational respiratory and skin sensitisation to PFA hardener. Also 2 cases of occupational asthma in workers exposed to PFA in tanneries are reported. Methods: A standard series prick and patch tests was carried out on 15 workers with skin symptoms out of 36 adhesive tape printers exposed to PFA. Prick tests with a 1% PFA water solution and patch tests with a dilution series (0.1-0.32-0.5-1%) of PFA in petrolatum were performed. Lung and nasal provocation tests with PFA hardener were also carried out on 4 subjects with skin and respiratory symptoms. Results: Skin sensitivity to PFA prick tests was demonstrated in 8.3% of the exposed population; 22.2% of the exposed workers suffered from allergic contact dermatitis due to PFA with positive patch tests for this compound. One case of occupational rhinitis due to PFA was diagnosed. Conclusions: PFA is a strong sensitizer and the use of gloves and protective clothing appears to be insufficient to prevent occupational allergic diseases. Elimination of PFA from production processes is desirable.