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[Health hazards from exposure to ortho-phthalaldehyde, a disinfectant for endoscopes, and preventive measures for health care workers]

[Article in Japanese]

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Abstract

Recently, the use of ortho-phthalaldehyde(OPA)has been increasing as an alternative to glutaraldehyde(GA)for endoscope disinfection. We detected development of bronchial asthma and contact dermatitis in health care workers(HCW)employed in an endoscopy unit. After performing health examinations and work environment measurements, we took preventative measures against development of these diseases. Seventeen of 70 HCW had experienced skin, respiratory, or eye symptoms. Contact dermatitis occurred in 4 workers, one of whom also developed asthma. OPA concentration in the air of the endoscopy unit ranged from 0.06 to 2.01 ppb. The highest OPA concentration was obtained while the cover of a bucket for dipping endoscopy instruments was opened. Dipping of instruments was then discontinued, a personal protector was provided to each HCW and local ventilation devices for auto-washers, and health education was performed for HCW. At the periodic health examination the next year, two of 83 HCW described mild eye irritation, but no contact dermatitis or bronchitis had newly developed. This study clearly revealed that despite a very low level of OPA in air, symptoms of skin and the respiratory tract can occur. Spreading use of OPA as a substitute for GA may result in serious health risks for HCW. To prevent health hazards from OPA exposure, wearing of a personal protector and use of a fully automated washing machine with a local air exhauster are required.

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