SIDE EFFECTS OF MODERN CHEMICAL DISINFECTANTS AND ANTISEPTICS. PART 4. ALLERGIC AND NON-ALLERGIC EFFECTS AS CONSEQUENCES OF THEIR CONTACT ON THE MUCOUS MEMBRANES OF THE ORAL CAVITY, UROGENITAL TRACT, WOUND SURFACES

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Abstract. We collected, summarized, systematized and analyzed information (47 articles, mostly over the last 10 years) about the allergenic and non-allergenic effects of disinfectants (D) and antiseptics (A) when they enter the body. It has been shown that these compounds are toxic and upon contact with the mucous membranes of the oral cavity and urogenital tract, with wound surfaces, they cause side effects, including allergic ones, in particular hypersensitivity reactions, with severe (fatal) consequences.
The aim of the study. Search, collection, synthesis, systematization and analysis of information, mainly over the last 10 years, about the allergenic and non-allergenic effects of D and A upon contact with the mucous membranes of the oral cavity and urogenital tract, and with wound surfaces of the body.
Materials and methods. Literary search for information, its analytical study and discussion.
Results. 47 scientific articles were found, summarized and systematized. They highlight the allergenic and non-allergenic effects of D and A when they come into contact with the mucous membranes of the oral cavity and urogenital tract, and on the wound surfaces of the body. The material was classified in accordance with the chemical structure of D and A.
Conclusions. D and A (ethanol, peroxide compounds, povidone-iodine, chlorine-containing reagents, chlorhexidine, quaternary ammonium salts) are dangerous chemicals that, when in contact with the mucous membranes of the oral cavity and urogenital tract, with wound surfaces, cause side effects, including allergic ones. These chemicals are responsible for worsening asthma, urticaria, systemic contact dermatitis, and severe (fatal) poisoning. Unlike inhalation and transdermal penetration of D and A into the body, when entering through mucous and wound surfaces, the doses of these substances are sufficient for rapid and severe hypersensitivity reactions (anaphylactic shock), including fatal ones. Health care personnel should be alert to symptoms observed during manipulation and surgery associated with the use of chlorhexidine and povidone-iodine before patients develop rapid and severe hypersensitivity reactions, and be prepared to administer epinephrine at the first sign of anaphylactic shock.
Key words: disinfectants, antiseptics, asthma, allergy, anaphylaxis, arterial hypotension, nettle, hypersensitivity reactions, systemic contact dermatitis.