

PROPHYLAXIS OF THE CONTACT (GLOVE) DERMATITIS AT DENTISTS

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Introduction

Daily stomatologic practice is one of leaders in number of development of undesirable reactions not only at the patient in the dental chair, but also at the dentist, worsening his state of health that in the subsequent is capable considerably to complicate, and sometimes to make impossible further professional activity [1]. In the last decades in connection with continuous use in work of the doctor of gloves abundance of a glove dermatitis considerably increased [2]. This problem fully concerned the practicing dentists of all specialties [3]. The absolute majority of daily used gloves are latex. The risk of allergic reactions to the latex (which is a part of many products of medical appointment) at dentists according to express literature makes 12.7%. Also note that 17% of health workers are sensitized to latex, and at 2% of them it was a cause of illness bronchial asthma [4].

Contact dermatitis from irritation, or an irritative dermatitis makes up to 40% of all facts LA. Both allergic, and not allergic mechanisms share in development of this disease. The latex and chemicals added to a product by production can be the cause of its development. Reaction arises on integuments of hands or any other part of a body after contact with products of latex. The Irritativny dermatitis appears in connection with violations of water balance of skin, in this regard its most reference symptoms are: dryness of integuments, an itch, irritation, a hyperemia, a burning sensation in places of immediate contact of gloves with skin, change of drawing of an integument, crack, rash [5]. Such local manifestations of LA can disappear throughout the short period of time after the termination of contact with latex and use of nutritious creams. The contact and allergic dermatitis makes up to 30% of supervision of LA. It is similar to eczema allergic reaction of delayed (IV) type which usually develops on hands or other parts of a body in 24–48 clocks after the termination of contact with latex products. Not only latex, but also chemicals added to a product can be the cause of such reaction by its production. Local hypostasis, a hyperemia, an enanthesis as an eczema or an urticaria, an itch, cracks, a false skin thickening in places of contact with latex gloves belong to the main clinical signs of a contact and allergic dermatitis above.

Materials and Methods

In researches 22 dentists of Minsk shared. Including 12 volunteers – women, aged from 19 till 49 years which middle age made 29,4 years. Also 10 volunteers – men aged from 19 till 68 years which middle age made 25,5 years shared in research. All surveyed expressed the voluntary informed consent to participation in research. The bioimpedance analysis of a condition of integuments of hands with use of the electronic analyzer «Electronic Skin Analyser» Oriflame was carried out. The following parameters of integuments of hands were estimated: humidity, fat content, a turgor before work in gloves, after work in gloves (latex and nitrile) without use of protective serums, after work in gloves with preventive application

of 4 options of serums with various content of hyaluronic acid, a bisabolol and D-panthenol. Any of serums did not contain parabens, mineral oils, synthetic dyes and odorants. Prophylactics used in 10–15 minutes prior to reference processing of hands before reception of patients and therefore, before putting on of gloves. There was enough this interval of time that cream was completely absorbed and began to have positive effect. The period of finding of hands in gloves of objective results, both latex, and nitrile for the purpose of receiving, was standardized and made 3 hours. Researches were conducted by a double blind method: neither the researcher, nor volunteers knew composition of preventive serums.

Results and Discussion

The analysis of the obtained data allowed to reveal that after work in gloves humidity, fat content, a turgor of skin of hands in the common group of the examined dentists worsened for 67%. Use with the preventive purpose of serum No. 1 promoted improvement of an index «fat content» of integuments at 50% of the dentists sharing in research. Use of serum No. 2 promoted improvement of an index "fat content" of integuments in 58.3% of supervision and an index «turgor» – in 41.6%. Use of serum No. 3 allowed indexes «humidity», «fat content» and «turgor» of integuments of hands in 91.7% of supervision, in 8.3% – only fat content of integuments of hands improved. Use of serum No. 4 allowed to improve an indicator «fat content2 of integuments of hands in 83.3% of supervision, indexes «humidity» and «turgor» - in 16.7%.

It is necessary to emphasize that reliable distinctions on the considered indexes characterizing a condition of integuments of hands at the dentists participating in research both when using latex, and at application of nitrile gloves were not revealed. Significant distinctions and on a gender sign were not also revealed.

Conclusions

The presented material gives the grounds to conclude that the condition of integuments of hands of dentists without use of prophylactics considerably worsens on indexes «humidity», «fat content», «turgor» that can be regarded as the prerequisite of development of a contact (glove) dermatitis. The best of the used prophylactics should consider the serum No. 3 promoting simultaneous and to the uniform improvements of all three indexes of integuments.

References

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