

# OCCUPATIONAL DERMATOSES IN HEALTH PERSONNEL WORKING IN A SURGICAL AREA

## A transversal descriptive study from three hospitals in Barcelona

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### INTRODUCTION

Health workers have a high occupational risk. (1) Irritant and/or allergic contact dermatitis and contact urticaria are the most frequently reported occupational dermatoses. (2,3) Health care personnel are exposed to a wide variety of cutaneous potential irritants and the most common type of eczema reported is irritant contact dermatitis. Atopy and wet work seem to increase the risk of hand eczema. (4) Recently, the development of alcohol-based hand rubs containing emollients has reported to reduce the skin damage, dryness and irritation. (5-6).

### MATERIAL AND METHODS

A transversal descriptive study was carried out. A specific questionnaire was submitted to the health personnel working in the surgical area from three hospitals in Barcelona (Hospital del Mar IMAS, Hospital de Sant Pau and Hospital Clinic). The questionnaire was based on the "Nordic Occupational Skin Questionnaire" (NOSQ-2002/LONG translation master in English) (7) and was prepared in the two official languages in Catalonia: Castilian or Spanish ("Cuestionario de enfermedad profesional para personal sanitario") and Catalan ("Questionari de malaltia professional per el personal sanitari") (Fig. 1). Both questionnaires were discussed and reviewed by 3 Dermatologist and specialists in Occupational Diseases. Ten healthy volunteers answered previously the definitive questionnaire in both languages. An occupational specialized nurse was trained to resolve any doubt about the questionnaire. The questionnaire was self-answered by each subject included in the study with the aid of a nurse. A total of 120 complete and valid questionnaires were analyzed. A data base was created introducing all responses. (Fig. 2) Standard descriptive and inferential statistical methods were used to analyze the responses.

### RESULTS

#### G. Demographic data, work and activity feature.

Female/male ratio was 3.5/1, 77,9 % of individuals included in the study were women and 22,1% men. The mean age was 41,9 ± 9,8 years. A 64,4% were nurses, 29,6% physicians and surgeons, 5,2% cleaning personnel and 0,9% others. A 67,9% have been working in this area for less than 20 years, whereas 27,9% have been working more than 20 years. A 71,5% of individuals worked from 30 to 40 hours per week. A 22,3% of respondents worked concomitantly in an extra job often related with health care.

#### A. Personal atopy history.

A 33 % of respondents referred a previous diagnosis of atopic dermatitis, a 44,5% referred seasonal rhinitis, 39,4% allergic conjunctivitis and 11,8% allergic asthma.

#### U. Contact Urticaria

A 18,7% of individuals referred itchy fleeting wheals and 46,7% of them clear-cut contact urticaria. Gloves were the main inducers. A 49,9% of individuals with urticaria experienced a severity score of "today" itchy wheals > 3 (0-10 score) and a 72,8% a severity score > 3 at the "worst" moment.

#### S. Signs and symptoms of eczema, urticaria and dry skin.

Cutaneous signs (redness, dry skin, fissures, crusts, vesicles, papules, wheals) and symptoms (itch, burning sensation, tenderness, pain) of eczema and urticaria were registered in different percentages. Metal intolerance was referred by 28% of respondents. A 50% of them referred dry skin and 10,5% cholinergic itch.

#### T. Medical diagnosis of skin disease.

Few respondents (26,3%) reported a medical diagnosis of allergy. Most of the allergens corresponded to aeroallergens (i.e.Dermatophagoides), drugs (i.e.AINEs), food (i.e. soy) and contact allergens (i.e. latex or nickel). Prick test and patch test were the main diagnostic tests employed.

#### E. Gloves use and wet-work.

49,2% of them from 4-6 hours per day and a 29,1% from 7-10 hours per day. Latex gloves were the most frequent used (65,8%), followed by plastic (56,7%) and synthetic (18,3%) gloves. A 68,8% of respondents did wet work more than two hours per day and 37,8% admitted to touch the drugs directly with the hands. To the question: How many times do you wash your hands per day?, 25,3% answered more than 20 times per day, 33,3% between 11 to 20 times per day, and 35,4% between 6 to 10 times per day.

#### H. Health evaluation and family members.

status to be excellent (16,5%), very good (40,2%), good (38,1%), fair (3,1%) and poor (2,1%).

### DISCUSSION

This study is the first approach in evaluating occupational skin disease among health personnel working in surgical areas in Spain. In spite of the well-known limitations of a study based on a defined questionnaire, this tool helped us to expand our knowledge regarding the characteristics of occupational dermatoses in surgical areas. The 45% of respondents referred to suffer from hand eczema, only 26,3% of respondents had a definite medical diagnosis of some subset of allergy. Latex hypersensitivity was demonstrated only in two respondents and metal (nickel sulfate and dichromate) contact dermatitis was identified by patch test in only two individuals.

### CONCLUSION

Few studies have been addressed in order to evaluate the exact prevalence and clinical features of contact dermatitis and contact urticaria among health personnel working in hospitals. Many works remain to be done. The use of the health personnel occupational skin questionnaire allowed us to detect occupational skin disease previously misdiagnosed.

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