

# Skin wrinkles on the wrists: A new occupational skin disorder in dentists?

Funda Tamer<sup>1</sup>, Evren Sarifakioglu<sup>2</sup>

<sup>1</sup>Department of Dermatology, Medical Park Hospital, Ankara, Turkey, <sup>2</sup>Evren Sarifakioglu Dermatology Clinic, Department of Dermatology, Ankara, Turkey

**Corresponding author:** Dr. Funda Tamer, E-mail: fundatmr@yahoo.com

Sir,

A 48-year old Caucasian female presented with skin wrinkles on the wrists bilaterally. The patient stated that these lesions have been present for the last ten years and they became deeper gradually. She didn't use any antiaging products or sunscreen for her hands and upper extremities regularly. Dermatologic examination revealed bilaterally symmetrical distributed linear skin wrinkles on the dorsal site of both wrists (Fig. 1). The patient was a dentist and she admitted that she usually extend her wrists while working. Therefore, the patient was advised to avoid the palmar extension and change position as often as possible.

A variety of occupational health problems have been reported in dental health care providers. Some of these disorders may be life threatening or they may lead to reduced productivity. Dentists are at risk of some infectious diseases including tuberculosis, Human Immunodeficiency Virus, hepatitis B virus and hepatitis C virus infections. In addition, low back pain, hand and wrist complaints are the most common musculoskeletal problems in dentists [1,2]. They may develop contact dermatitis due to latex allergy and frequent use of dental instruments or some chemicals like disinfectants, detergents and solvents [1,3]. Exposure to mercury from amalgam fillings may result in neurological symptoms [1]. Furthermore, ionizing radiation used in dentistry, chromium and beryllium in dental prosthesis and mercury have carcinogenic effects. It has been suggested that dentists are at risk of some malignancies like bladder, brain, intestine and lung cancer, leukemia and malignant lymphomas [4].



**Figure 1:** Bilateral, linear, deep wrinkles on the dorsal aspect of the hands and wrists.

Occupational skin disorders are very common and most of the cases are contact dermatitis due to irritants or allergens. Kurpiweska et al. reported work related skin diseases in certain occupations. They found that 64% of the dentists had skin disorders on hands and forearms and wearing protective gloves were the main cause in 35% of the cases [3].

Ultraviolet radiation plays important role in the formation of wrinkles. Moreover, Fijumira et al. reported relationship between facial movements and wrinkling of the skin. They took photographs of 66 healthy women during rest and facial movements like raising eyebrows or closing eyes tightly. They showed similar distribution patterns of the wrinkles both in static and the dynamic states. Furthermore, the degree of wrinkles in the same facial region were correlated in static and dynamic states [5].

The patient we presented above had linear wrinkles on the dorsal site of her hands and wrists due to repetitive muscle movement of the upper extremities while working. There

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wasn't any other underlying condition in the development of skin wrinkles and she didn't have any sign of premature skin aging. Therefore, we suggest that prolonged extension of the hands and wrists may lead to deep wrinkles on the dorsal site of the hands and wrists in dentists.

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