

Countless reports have been published focused on the iatrogenic skin disorders among healthcare providers during COVID-19 pandemic infection. Besides cutaneous manifestations of COVID-19 infection, skin can be affected by the protective measures, especially within healthcare workers, raising the awareness of new types of occupational skin diseases.

Prolonged use of face mask has been associated to skin dryness in 70.3% and desquamation in 62.2% of health personnel, especially on the nasal bridge (83%) as new reports claims (1).

After months of study, a statement has been released revealing that prolonged use of face masks and headgears can cause allergic contact dermatitis, irritant contact dermatitis, pressure urticarial, friction dermatitis and aggravation of pre-existing skin diseases (2).

Retro-auricular area is susceptible to mechanical pressure and friction caused by prolonged use of face masks, especially due to tightness of ear loops (3).

A 45-year old male patient, a healthcare worker in Intensive Care Unit, treated for 2 years with adalimumab for Crohn disease, presented in consultation with de novo, bilateral, erythematous scaly plaques, localized retro-auricular, overlaid the area covered by ear loops (Figure1).

Searching the medical data, no records of cutaneous psoriasis have been found and clinical examination did not notice any other skin lesions. Mycological direct examination was negative. Taking into consideration the previous diagnose of Crohn disease, adalimumab treatment and clinical picture, a Koebner phenomenon was supposed and, subsequently, a psoriasis diagnosis. Topical steroids cleared up the lesions in two weeks, preventive measures (avoiding friction) and close follow-up were recommended.

Other hypothesis diagnostic should be excluded, such as seborrheic dermatitis and contact dermatitis, especially in the absence of skin biopsy and lack of psoriasis lesions in other areas of the body. In favor of diagnosis of psoriasis count the clinical aspect, bilateral and symmetrical distribution of the lesions, absence of pruritus, family history of psoriasis, adalimumab treatment for Crohn disease.

Koebner phenomenon is known as a trigger factor in psoriasis; recent explanations are centered on immune response, showing that scratch induce, upregulation of CCL20, accumulation of IL-17-A producing cells and presence of CCR6 dendritic cells (5).

Paradoxical psoriasiform reaction, de novo psoriasis or exacerbation of pre-existing psoriasis during treatment with anti-tumor necrosis factor (TNF)- α drugs are already known, explained by affecting the balance between TNF- α and interferon (IFN).

We present a case of koebner phenomenon induced by friction, caused by tightness of ear loops of face mask, used as protective measure against spreading COVID-19 infection.

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