

Cell phone dermatitis

Sir,

Metal cases of mobile phone are newer sources of the growing list of conditions where nickel may cause contact dermatitis.

A 32-year-old man, software professional by occupation, presented to us with history of unilateral itchy red rash on left cheek for 6 weeks, which worsened in hot weather and with excessive sweating [Figure 1]. There was no history of similar lesions/atopy/metal allergies in the past. He gave history of using his mobile predominantly on the left side and often for long periods of time. He



Figure 1: Preauricular dermatitis corresponding to the area of mobile use



Figure 2: Mobile usage habit

was using the same mobile set for the past 3 months [Figure 2]. On examination there was a well-defined erythematous eczematous area with some scaling on preauricular area in a diagonal rectangular pattern with an area of mild erythema on auricle corresponding to the site of contact with mobile during its usage. He was advised to swap to the other side and to report after a week. He developed erythema and itching on the other side of the cheek. He was patch tested on forearm for nickel, chromium, and cobalt and found to be ++ for nickel according to International Contact Dermatitis Research Group (ICDRG) criteria. He was advised to change his mobile phone and avoid long periods of contact with the phone. Free content of the nickel from the case could not be assessed as dimethylglyoxime was not available. However, during the subsequent follow-up of the patient, the improvement of the dermatitis without relapse, with avoidance of mobile usage indicated that its usage was causative.

The increased use of the cellular phone is associated with a wave of reports about the possible ill effects associated with it. The reported cutaneous effects of mobile usage are dysesthesiae of the scalp, angiosarcoma of the scalp, and aggravation of symptoms of atopic eczema/dermatitis syndrome, and the most convincing reports are of contact dermatitis.^[1,2] The causes of dermatitis related to mobile phone are mainly related to nickel, chrome, and cobalt but may also be related to electromagnetic radiation.^[3]

Nickel is among the most common allergens and can cause sensitization in up to 28% of adults. Mobile phone dermatitis has been commonly reported among females, predominantly involving the cheek, preauricular area, and homolateral auricle - corresponding to the habit of its usage.^[1,2] Even though nickel sensitivity is more common among females because of the common practice of using imitation jewelry available in the market that releases free nickel on coming in contact with body sweat, it is not uncommon among males.^[4] The severity of the clinical presentation is directly proportional to perspiration, friction, pressure, and the amount of nickel that a particular alloy releases.

This report is to highlight the fact that usage of mobile phone as an elicitor of contact dermatitis should not be overseen in unilateral facial dermatitis. The metal cases coming in prolonged contact with skin and releasing more than 0.5 $\mu\text{g}/\text{wk}/\text{cm}^2$ should be prohibited as per the European directive on nickel.^[5] Mobile phone manufacturers need to be aware of nickel and other metals being liberated from the case as a source of allergies, so as to take appropriate action.

Madhukara J, Sendhil Kumaran M, Anil Abraham

Department of Dermatology, St. John's Medical College Hospital, Bangalore, India

Address for correspondence: Dr. J Madhukara, Department of Dermatology, St. John's Medical College Hospital, Surjapur Road, Bangalore, Karnataka - 560 034, India.
E-mail: madhu_doc74@rediffmail.com

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