

# Dermatitis after Bathing with Well Water among a Group of Secondary Students Participating in SOTUS Activity

## Dear Editor

The problem of skin disorders in different groups of population joining common social activities is an interesting topic in dermatology. The outbreak of skin disorders is not common but can be seen in common social activities. The author has already reported a cluster of dermatitis due to using a special kind of dye in a SOTUS (seniority, order, tradition, unity and spirit) activity in university students<sup>1</sup>. Hereby, the author would like to report another cluster of dermatitis due to well water contact among secondary school students who participated in a SOTUS activity, as well. Twenty five secondary school students (all females) presented with itchy skin lesions after bathing with well water while participating in the welcoming SOTUS activity of the school. All cases were visited by the primary physician within ½-1 hour after bathing. The skin lesions were described as discrete small erythematous papules seen at every part of the body. All patients were from wealthy families and had never used well water before. The skin lesions developed within 15 minutes after body bathing with well water. Since all cases were females and they felt shy, they did not consent to photography.

Basically, water induced dermatitis can be due to several factors including osmolarity, pH, hardness and temperature<sup>2</sup>. Examining the water source revealed that it was a well that was used for pumping underground water. The well was located

about 5 km from the sea with a mud seashore. The water of that area has a high pH and contains high levels of iron, magnesium and calcium ions and is classified as hard water that can induce dermatitis<sup>3</sup>.

Indeed, hard water dermatitis can be seen around the world. The problem is more common in developing countries where tap water is not easily available. This report reconfirms the importance of skin health in people joining the social activity. Of interest, water hardness is proposed to increase the risk of atopic dermatitis among school children<sup>4,5</sup>. (*Iran J Dermatol* 2010;13: 105)

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