

Cutaneous Inhaler Burn

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Received date: May 19, 2014, Accepted date: June 24, 2014, Published date: June 26, 2014

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Case Report

A 13-year old boy attended the ENT outpatient department for otological review. A rectangular burn mark with surrounding skin peeling on the dorsum of his left hand was incidentally noted. Further history revealed that a week prior to the visit, he was challenged to spray the back of his hands using his friend's Salbutamol metered dose inhaler. The mouthpiece of the inhaler was placed in direct contact with the dorsum of his hand and sprayed 4 times. There was no immediate discomfort but he noticed that skin changes mainly erythema started to develop over several hours.

To our knowledge, cutaneous inhaler burn injury is rare and only 5 cases have been reported in children [1-4] and adult [5] with mental illness. The mechanism of injury is thought to be a combination of several factors including the physical abrasive effect from the aerosol blast, intense cooling effect on the skin and chemical injury from the pharmaceutical/preservative/propellant aerosol [5] (Figure 1).

This image serves as a reminder that inhaler burn may be considered in children presenting with cutaneous burn in the shape and size of an inhaler mouthpiece. These images also serve as a reminder of the hazardous risk of misusing metered dose inhalers.

References

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Figure 1: Cutaneous burn from the Salbutamol metered dose inhaler compared to a 2 pence coin (dorsum of left hand).