Oculo-Facial Burns Following Heat Fomentation: A Case Report

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Abstract

Objective: This report brings the attention of users to hazards of local application of therapeutic heat fomentation on a child.

Subject and Methods: A case report of faciococular burn sustained by a child whose mother applied heat fomentation is presented. The case note of the patient was the source of the information.

Result: The 14-month-old girl sustained facio-ocular burns, associated cornea injury and lower lid ectropion.

Conclusion: The use of heat fomentation in children is dangerous and should be avoided.

Keywords: Ocular burns, heat formentation.

Introduction

Burn injuries in paediatric age group have been reported by several authours[1-3] from our environment. Various reasons have been given for these injuries among which scald is the most common1. This is usually from hot water, tea, soup and various hot food items[4]. Burn injuries as a result of heat fomentation has however not been reported.

Heat fomentation is a common practice in the treatment of common cold or catarrh, and malaria, in our environment[5,6]. An adult when receiving heat fomentation could withdraw when the temperature of the steam becomes unbearably hot. A child under a similar condition faces hazards of sustaining burn injury as he may be unable to withdraw on his own.

We report a case of a 14 month old girl who sustained burn injuries to the face and the left eye as a result of steam heat fomentation.

Case Report

A 14 month old girl was brought to our clinic 2 weeks after sustaining scald injury to the face and left eye following hot formentation for upper respiratory tract infection. The child had been suffering from upper respiratory tract infection and mother was counseled to give steam inhalation to the baby. She was on this therapy for about a week when the mother observed bullae over the right side of the face. From the 5th day of the treatment, the



Fig. 1: Facio-ocular burns from heat fomentation.

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mother noticed refusal to open the right eye in the child. She afterwards observed cloudiness of the left eye. She then presented to a private hospital where the wound was dressed for about two weeks before presenting to us.

On examination child was an apprehensive young girl, not pale, afebrile anicteric and well hydrated. Examination of the face revealed a wound over the right part of the face measuring about 4 by 6 cm, with unhealthy granulation tissue and serous discharge from the wound. The surrounding skin appeared scared with eversion of the upper lip around the wound area and ectropion of the left lower eyelid.

Visual acuity could not be determined because the child was irritable. There was cicatricial ectropion involving the medial third of the lower lid of the right eye. The conjunctiva was hyperaemic with ciliary flush. There was an irregular corneal ulcer in the center of the pupil, while the rest of the cornea was hazy. The rest of the eye was difficult to appreciate. The left eye was essentially normal. She was jointly managed by the ophthalmologic and the plastic surgical units; commenced on Mydriacyl, and Rifamycin eye drops and padding of the affected eye. The ulcer healed after two weeks but the cornea remained hazy though clearer because the anterior chamber and the pupil could then be appreciated.

Patient had split thickness skin grafting of the facial wounds and right lower lid after the release of the lower lid ectropion. Mother was educated against such practice and the dangers inherent in the practice explained to her. Child was discharged 3 after weeks on admission to be followed up at the outpatient.

Discussion

Hot liquids have been known to splash unto the eye from substances that explode after removal from a microwave[7]. Hot fomentation is a common practice in our environment, and usually used for varying reasons[5,6]. Injury resulting from hot fomentation is a potential danger. Our patient sustained thermal burn of the face, involving the central aspect of the corneal as well as the infraorbital, nasolabial and upper lip areas. The danger in this patient is the risk of amblyopia, especially in an environment like ours where corneal transplantation may not be easy to come by. Apart from cosmetic defect especially in a female, another danger is the severe ectropion which could cause exposure keratopathy. Early presentation and prompt treatment should give a better result and minimize the risks of complications as seen in this patient.

Education of the public, especially mothers, on the hazards of the use of hot steam applied directly to a child's face for therapeutic purposes, may necessary to reduce such practices and consequent complications.

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