



A child with deep face burn caused by chafing fuel

To the Editor,

Although camping and picnic stoves in which chafing fuel containing methyl alcohol is used are very useful products, they may lead to very big problems, if not used carefully. In this article, a child in whom second degree-burn developed in the face as a result of use of chafing fuel was presented to emphasize that these types of fuel used in picnic stoves should be used carefully.

A 5-year old boy who had no health problem previously presented to the emergency department because of face burn. It was learned that an explosion occurred while lighting up the picnic stove with chafing fuel while he was having a picnic with his family. Before he was brought, his face was washed with water and cold application was performed. His personal and familial history was normal. His vital signs were normal. On physical examination, erythema and edema containing tissue remnants belonging to perforated bullae were present in the whole face and in a part of the neck (Picture 1). Examination of the other systems was found to be normal. Complete blood count and routine biochemical tests were found to be normal. A diagnosis of superficial and second-degree burn was made and the patient was hospitalized. Intravenous meperidine (0.5 mg/kg every 6 hours) was administered for his pain. After his face was washed with normal saline it was dressed with gauze impregnated with antibiotic ointment containing nitrofurazone which prevents sticking, which is oily and has a regional effect. After consulting with ophthalmology locally acting steroid eye drop (tobramycin + dexamethasone) was started. On the 5th day of hospitalization, the patient whose general status was well was discharged with instructions. In the follow-up, it was observed that hypertrophic scarring developed in the face of the patient due to this burn.

Flash-burns have a high rate of mortality and the need



Resim 1. Erythema and edema containing remnants of perforated bullae in the face and neck as a result of explosion of picnic stove

for surgical intervention is high in these types of burn (1). Chafing fuels containing methyl alcohol are cheap and easily available products.

Since it can not be fully understood if these fuels have been extinguished completely, explosion may occur when they are closed accidentally. Since this fuel continues to burn on the surface it adheres, it may cause to deeper and more severe burns compared to normal burns.

Burn is a condition which creates pecuniary loss and intangible damages for both the child and his/her family and which may lead to mortality and disability. The most significant factors of mortality and morbidity include the age

of the patient, burn surface area and the depth of burn (2). Treatment of patients with burn is troublesome and expensive, since it requires intensive care conditions and educated personnel. In addition, long-term rehabilitation and repeated interventions may be needed for treatment of physical and psychological problems. The majority of burns occur as a result of accidents. Therefore, it would be more efficient to prevent accidents by defining risk factors (3). Burns most commonly occur in relation with hot water and fluids. This is followed by flash-burns and electric burns. In a study performed in our country, the factors of burn included hot water and fluid in 70.2% of the cases, flash in 19.9% of the cases and electric in 8.8% of the cases (4). The majority of pediatric burn cases are below the age of six years and the frequency is higher in boys (1). Children in this age group are curious about the surroundings, they try to touch or hold what they can reach. However, they cannot recognize potential hazards and they do not have the ability to take the necessary precautions and to escape. During this period, protection and supervision by adults is necessary (1).

Wound healing is a natural process which occurs spontaneously. After re-epithelization is completed, the process continues with the remodeling stage. In this stage, the substances accumulated are broken down and replaced by new and newly produced substances. However, in many burns, things go wrong in terms of the type and localization of remodeling substance and hypertrophic scarring develops. This is almost definite in burns which take a long time to heal (5).

The main source of infection which is observed in patients with burn is the burn wound, but urinary catheter-related urinary infections, catheter-related infections and respiratory infections also increase the morbidity and mortality (6). In pediatric burn patients, hypothermia, pulmonary edema, airway edema, toxic shock as a result of ischemia-reperfusion and sepsis may be observed especially when burn includes a large surface area and persistent scars and

dysfunction may occur in the long term (7).

Conclusively, burn is a condition which may lead to severe physical and psychological problems in the acute phase and long-term and may still threaten life despite advanced technology. Therefore, the most efficient treatment will be prevention of burns by increasing the awareness of parents. In addition to hot water/fluid and fire, chafing fuels used especially in picnic stoves may also cause to burns. Therefore, special care should be taken while using these products.

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