

To the Editors:

## A case series of domestic pressure cooker burns

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### Introduction

Sri Lankans use kerosene oil, liquid petroleum (LP) gas and firewood for domestic cooking. Firewood is commonly used in rural areas. Urban and city dwellers use LP gas and electric appliances for cooking, though use of kerosene oil and firewood is not uncommon.

Domestic pressure cookers are used as an occasional cooking utensil for special food items. Injuries related to domestic pressure cooker burns are limited to case reports [1,2].

### Case reports

During a period of 5 months from April 2010 to August 2010 there were 7 casualty admissions (5 females and 2 males) with domestic pressure cooker burns. All were direct admissions from Colombo district. There were 2 steam burns and 5 scalds due to contact with hot water. Though everyone had irrigation with water soon after the accident, the duration was not adequate.

One patient refused inward treatment and others were admitted for observation. All patients were irrigated with running tap water for not less than 20 minutes. All had facial burns and three got anterior neck burns. All burns were superficial and superficial partial thickness burns, with burn surface area of less than 1% to 4%.

Everyone was treated with application of 5% povidone iodine ointment and liquid paraffin mixture over burn wounds, starting from first day. None had involvement of eyes or ears.

Patients were sent home after wound debridement. Facial hair was trimmed or shaved and povidone iodine and paraffin local application continued for 5 times a day until healing completed. Open technique was used to manage all burns.

Healing was complete by the 10th post burn day in all patients. As there were no signs of infection, no systemic antibiotics were used in any of the patients [3,4]. None had scarring or contractures, but developed

hyperpigmentation. Patients were convinced on the value of avoiding sun exposure for a period of 3 months and application of isotretinoin cream. Hyperpigmentation improved gradually with topical therapy over a period of 3 months.

### Discussion

Burns associated with the use of domestic pressure cookers appear to be rising. Therefore advice regarding the proper cooking technique is important for their prevention. All seven patients were burnt due to premature opening of the lid of the pressure cooker. The lid of the pressure cooker should not be removed until the pressure inside has been released completely. Trying to remove the lid with force is not advisable as that indicates presence of raised pressure inside the appliance. There are 3 ways to release pressure. "Natural release method" allows cooling over a period of 10-20 minutes. "Manually released method" using a pressure regulator is quicker than the natural release method. "Cold water release method" is the quickest and this includes taking the cooker to a sink and irrigating with water. This method is not recommended as it can cause contact burns.

Although there is no escape of steam once the pressure is completely released, it is advisable not to keep the face over the lid when opening it. Novices should take special care as they are more prone for pressure cooker related burns.

### References

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