ELECTRIC FLY SWATTER: POTENTIALLY HARMFUL NOT ONLY FOR INSECTS?

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SUMMARY. The electric fly-swatter is a household device used widely in Greece to kill mosquitoes. It consists of a racket-shaped electrical screen which is free of toxic and other chemicals. When the screen touches the insects, the contact generates an electric flash of light and the insects are incinerated. We present the case of a 15% flame burn caused by the flash of light produced by an electric fly-swatter. According to our review of the literature, this is the second case of burn injury caused by an electric fly swatter.

Keywords: electric fly swatter, partial thickness burns, domestic devices

Case Study

A 31 year-old female presented to our Accident and Emergency Department following an accident involving an electric fly-swatter (Fig. 1), with 15% partial thickness flame burn to both lower limbs (Fig. 2). The patient had rubbed both her lower limbs with alcohol solution in order to relieve herself from the itching caused by mosquito bites. She then tried to kill a mosquito with an electric fly-swatter, holding the device approximately 1 meter away from her legs. The flame produced by the insect incineration ignited the alcohol and both her lower extremities were engulfed by flames. Upon admission to our clinic, the patient’s burns were debrided and treated conserva-

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Fig. 1 - Electric fly-swatter.

Fig. 2 a, b - Thirty-one year-old female with 15% partial thickness burns.
tively with daily dressings of sulfadiazine 1% cream. During the period of hospitalization, the patient presented no infection or any other complication. She was discharged 15 days after admission and was followed up in our Outpatient Department until the wounds completely epithelialized.

**Conclusion and recommendation**

Electric fly-swatters are considered safe devices for eliminating insects and are used widely in many countries. These devices come with specific instructions for use, such as prevention of application of the metallic mesh to flammable surfaces and allowing the mesh to cool for a sufficient time following its use. According to our review of the literature, there is one other report by Muangman et al. of a 25% flame burn to a 2 year-old boy caused by an electric fly-swatter. However, in this case the burn was caused when the boy had placed the electric fly swatter onto the floor after it had made contact with a mosquito and was still hot. The floor was painted with adhesive shoe glue and the heat from the metallic mesh screen ignited the glue and consequently, the boy’s clothes. In the present case, the electric arc caused by insect incineration ignited the alcohol solution that the patient had rubbed on both her lower limbs. We would recommend reading the instructions carefully and that the device is used far from any flammable substances.

**RÉSUMÉ.** Le chasse-mouches électrique est un appareil ménager largement utilisé en Grèce pour tuer les moustiques. Il se compose d’un écran électrique en forme de raquette, qui est exempt de produits chimiques toxiques. Lorsque l’écran touche les insectes, le contact génère un flash électrique de la lumière et les insectes sont incinérés. Nous présentons le cas d’une brûlure sur 15% de la surface corporelle causée par le flash de lumière produite par une tapette à mouche électrique. Selon notre revue de la littérature, c’est le deuxième cas de brûlure causée par une tapette à mouche électrique.

**Mot-clés:** tapette à mouche électrique, brûlures d’épaisseur partielle, appareils domestiques

**BIBLIOGRAPHY**


**Conflict of interest.** The authors of this paper hereby declare that they have no commercial associations or financial disclosures that might pose or create a conflict of interest with information presented in this manuscript.

This paper was accepted on 24 January 2014.