

Tragic result of traditional hand pain control methods: Burns

Osman Akdag, Gokce Yildiran, Seyda Evin

ABSTRACT

Thermal burns often occur accidentally, and patients rarely can tolerate the “heated” materials. In this report, 2 cases that put heated materials to their hands to relieve their another hand pain as a traditional method is presented. A 54-year-old female and healthy patient was referred with wrist burn due to the hot melted tar to relieve her carpal tunnel pain, and a 13-year-old female patient was admitted with finger burn due to the hot onion to alleviate her paronychia. Thermal injuries are rarely self-inflicted. These traditional pain control methods resulted in severe burns. Detailed medical history and other medical conditions underneath the hand burn should be revealed.

Key words: Hand burn, pain relief, self-inflicted, thermal, unusual

Introduction

Thermal injuries mostly occur by accidentally, and self-inflicted thermal burns constitute a small part of them. Hand burns occurred by exposing to hot materials for pain relief are not much encountered in the literature [1].

Even if “hot” materials have played an essential role in the relief of pain for centuries and these materials have been utilized for relieving many types of pain, burning due to these materials is not a typical occurrence whether the patient is not unconscious or diabetic.

In this study, patients who were exposed to burns while trying to relieve their pain in their hands in various traditional ways are presented.

Cases

Case 1

A 54-year-old female patient had tingling and numbness in her right hand; especially in radial three fingers for six months which was compatible with carpal tunnel syndrome. The patient covered her right wrist with hot melted, dressed and kept it for five days to relieve her carpal tunnel pain. In the 5th day, the patient removed her dressing, 7th day the patient admitted to our clinic with 3rd-grade burn in her right wrist. In physical examination 7x15 cm, semicircular 3rd-grade burn in her right wrist was determined (Figure 1). The patient had no additional comorbidities. After serial debridements, the wound was covered with a

Author affiliations : Department of Plastic and Reconstructive Surgery, Selcuk University Medical Faculty, Konya, Turkey

Correspondence : Gokce Yildiran, MD, Department of Plastic and Reconstructive Surgery, Selcuk University Medical Faculty, Konya, Turkey
e-mail: ggokceunal@gmail.com

Received / Accepted : July 29, 2017 / November 16, 2017



Figure 1. 54-year-old female patient burned with a hot, melted tar which applied to herself to reduce her median nerve compression pain.



Figure 2. After the debridements and wound dressings, the skin graft was applied to the wound, and her median nerve decompression surgery was performed. Postoperative first-month view.

split-thickness skin graft. After the graft healing, median nerve was decompressed at carpal tunnel (Figure 2).

Case 2

A 13-year-old female patient had redness, tenderness of the skin around the fifth nail seemed to compatible with a paronychia. The patient applied hot onion pieces which were heated on the stove to the symptomatic areas of the finger and dressed to relieve the paronychia. She could preserve this dressing as short as 10 minutes because of the pretty much burning sensation. Next day the patient was admitted to our clinic with pain, swelling, and bullae on the fifth finger; and diagnosed with 3rd degree burns around the nail bed, 2nd degree burns in the volar side of the finger (Figure 3). The patient had no additional comorbidities. After ne-

crotic tissue debridements, wound dressings were regularly applied, and the wound left secondary intention. This patient was given intravenous antibiotics during her hospitalization because of paronychia (Figure 4).

Discussion

Burns due to traditional methods for pain relief are unusual. Self-Inflicted burns due to hot materials is not a typical occurrence. The characteristic feature of all the cases presented in this article is that; the material which had been thought to relieve the pain was the burn cause. The inevitable consequence of these paramedical treatment methods are the burns.

Tay et al. presented ritual burn cases during the



Figure 3. 13-year-old female patient burned with hot onion which applied to herself to reduce her paronychia pain.



Figure 4. After the debridements and wound dressings the wound was healed with secondary intention. Postoperative sixth-week view.

worship by fire [2] and Lewis et al. showed a similar ritual burn case with candle [3]. Burns due to traditional behaviors are rare. Our cases also have traditional behaviors for relieving the pain. One of them is the hot onion for relieving a paronychia pain. In the literature, we couldn't find a reported onion burn. The hot onion burn was encountered as a thermal burn. However, the patient was treated with analgesics and antibiotics as well as the wound dressings because of the paronychia.

Tar is used in surfacing the roads commonly [4]. Maghsoudi et al. claimed that hot tar burns are usually caused accidentally, usually seen in road workers [5], and they found the male/female ratio as 10:1. Also, Karadas et al. presented two cases of hot tar burn, and the patients were both male and workers [6]. However, our case differed from these examples with being female and being a self-inflicted burn instead of being an accident. Usually, pain is not a dominant symptom of carpal tunnel syndrome, and often patients define the numbness as pain [7]. Our patient was suffering from the carpal tunnel syndrome, and because of her pain, she wrapped her wrist with hot melted tar.

It is surprising that none of these patients has diabetes or neuropathy in their history. In the literature, patients exposed to thermal burns for pain relief often have diabetes [8]. This is due to a decrease in the sensation of warmth due to polyneuropathy. However, it is surprising how a conscious and non-polyneuropathic person can be able to resist the temperatures up to the burn.

A burn patient's history is crucial. When only the burn treatment is given to the patient, a probable paronychia, carpal tunnel or rheumatoid arthritis attack, etc. may remain unnoticed. Preventing the burn is still more important and easier than treating it. However, these 2 cases show that the history underneath the burn may be relevant to an additional medical condi-

tion. This history should be inquired, and the pain behind this situation should be unveiled.

Both these thermal injuries can be easily prevented, and the pain can be relieved with modern medical analgesics instead of conventional or folkloric methods.

Conclusion

In thermal hand burns, it is essential to work out the cause of the burn and why it is in contact with the patient. As it may be another underlying disease that creates a hand pain that needs to be treated; the hot material itself used to relieve the pain may also contain a chemical component as well as thermal effects.

Conflict of interest statement

The authors have no conflicts of interest to declare.

References

1. Odak S, Bhargava D, Haque F. Unusual contact burn due to analgesic thermal patch: A case report. *Burns* 2010;36:e148-9.
2. Tay YG, Tan KK. Unusual ritual burns of the hand. *Burns* 1996;22:409-12.
3. Lewis DM, Balakrishnan S, Coady MS, Allison K. Camphor burns to the palm: an unusual self-inflicted burn. *Burns* 2007;33:672.
4. Türegün M, Oztürk S, Selmanpakoğlu N. Sunflower oil in the treatment of hot tar burns. *Burns* 1997;23:442-5.
5. Maghsoudi H, Gabraely N. Epidemiology and outcome of 121 cases of chemical burn in East Azarbaijan province, Iran. *Injury* 2008;39:1042-6.
6. Karadas S, Gönüllü H, Oncü MR, Kara H, Baltacıoğlu H. Treatment of tar burns: two case reports. *J Pak Med Assoc* 2014;64:952-3.
7. Duckworth AD, Jenkins PJ, Roddam P, Watts AC, Ring D, McEachan JE. Pain and carpal tunnel syndrome. *J Hand Surg Am* 2013;38:1540-6.
8. Thng P, Lim RM, Low BY. Thermal burns in diabetic feet. *Singapore Med J* 1999;40:362-4.