A complication of wet cupping therapy: vesiculobullous plaque on an erythematous base

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1 Introduction

Wet cupping therapy (WCT) is a traditional complementary therapy, which has been in use for many centuries. WCT is used as an alternative and complementary medicine in the treatment of low back pain, migraine headaches, hypertension, brachialgia, carpal tunnel syndrome, oxygen saturation in smokers with chronic obstructive pulmonary disease and metabolic syndrome. WCT is also used in dermatological diseases, such as psoriasis, atopic dermatitis, acne and urticaria. Side effects of WCT, such as hypotension and bradycardia, rarely occur during application. However, dermatitis, localized infection, scarring and abscess have been reported following WCT. In some cases, bubbles of fluid may form at the treatment sites of WCT; these deposits may be located in the epidermis only or in both the epidermis and the dermis. Fluid deposits of < 5 mm in diameter are defined as vesicles and when diameter of fluid deposits > 5 mm, they are called bullae. Here we present a case of vesiculobullous lesions after WCT and discuss the physiopathology.

2 Case report

A 56-year old male patient, with no chronic disease, was treated for back and neck pain with WCT at the Research Clinic. In the medical examination, vital signs were stable and physical examination and routine biochemistry (hemogram, glucose, urea, creatinine, alanine transferase, aspartate transferase, thyroid functions, blood electrolytes and cholesterol) results were normal. Over the previous 3 months the patient had lost 12 kg in body weight through participation in sports. Cups were attached under negative pressure using a suction pump to DU14 (Dazhui) and BL41 (Fufen) bilaterally, after disinfecting the skin. The cups were removed after 3–5 min and 15–20 scarifications were made for each region with a No. 11 surgical blade. The cups were then re-attached under mild suction for approximately 10 min; accumulated blood was disposed of as medical waste. Dressings of sterile sponges were then applied.

The patient returned to the clinic on the following day because of painless vesicles in the application region. On inspection, 10–12 vesiculobullous lesions, with a maximum size of approximately 10 mm × 15 mm and lancet scars were seen on an erythematous area of 5–6 cm in diameter in the Dazhui and Fufen (right) regions (Figure 1A). Triticum vulgare aqueous extract (fito krem) cream was applied and covered with a light dressing. The patient was advised to avoid puncturing the bullae.
On the third day after WCT, the vesicles in the Dazhui region had recovered and 5–6 haemorrhagic vesiculobullous lesions, of maximum size 10 mm × 10 mm, were observed in the right side Fufen treatment site (Figure 1B).

On the seventh day after WCT, all the lesions had disappeared; the application areas had the appearance of a light pink coloured map and few scar areas were seen (Figures 1C–1D).

Figure 1 Lesions after wet cupping therapy in different period
A: vesiculobullous lesions on erythematous area; B: haemorrhagic vesiculobullous lesions; C: lesions treated by Triticum vulgare; D: minimal scar and light pink coloured lesions after healing.

3 Discussion

WCT was legalised in Turkey by the Ministry of Health through the Traditional and Complementary Medicine Regulation (2013), encouraging widespread use of the treatment in Turkey.[5]

WCT complications are rarely seen. In literature there have been reports from post-mortem examinations of perineural abscesses and erythematous background at the cupping site due to the treatment.[6]

In a review of the side effects of WCT by Kim et al.,[5] the most common side effects were reported to be anaemia (n = 5), factitial panniculitis (n = 2) and herpes viral infection (n = 2). In another study by Al-Rubaye,[2] histological changes following WCT were reported as mild oedema, vacuolization and longitudinal fissure in the epidermis and dermal oedema and bleeding in the upper and lower parts of the dermis, with no cellular infiltration. Generally, development of oedema in the sublayer of the dermis following WCT indicates the formation of bullae. In the current case, a factor affecting the formation of vesicular lesions may have been the
suction treatment after the skin integrity was disrupted by scarification. However, as this has not been observed in other patients, it may be that the recent weight loss of the patient may have contributed to the formation of bullae in this case. Weight loss loosens the skin due to the reduction of subcutaneous fat deposits. Because haemorrhagic bullae can form more easily in loose skin after trauma, they pose a clinicopathological challenge during times of skin fragility. Thus, in some forms of dermatosis characterized by loose skin, bullae formation is more likely.

In conclusion, it must be emphasised that cupping treatment practitioners need to be aware of complications before and after therapy. It should be noted that vesicle and bullae formation is more likely following WCT in patients who have undergone recent weight loss.

4 Conflict of interests

The authors declare no conflict of interest.

REFERENCES