

Education-Family Physician Corner

Lymphedema Following Cupping Therapy "Hijama" Post Breast Cancer Surgery and Axillary Clearance

Sara Al-Reefy, MD, MRCS, CABS*
Maryam Parsa-Nezhad, MB, BCh, MSc**

Cupping therapy or medicinal bleeding is a form of traditional therapy that has been described in ancient Greek medicine and is still commonly practiced by Muslims around the world following the teachings of Prophet Muhammed (PBUH).

We describe a case of upper limb lymphedema occurring in a 49-year-old lady with breast cancer following surgery and axillary node clearance. This occurred immediately after she had wet cupping therapy on the affected upper arm.

We postulate that wet cupping therapy has contributed to the formation of lymphedema in this patient. To the best of our knowledge this is the first case reported in literature.

Bahrain Med Bull 2014; 36(1):

Cupping therapy (also known as Hijama) is a form of alternative medicine that has been described in ancient Ayurvedic Texts; detailed, systematic, scientific modes of bloodletting are cited. It was practiced among ancient people of Mesopotamia, Egypt and Greece. It was believed that human has four humors "black bile, yellow bile, phlegm and blood" and you have to balance the four to be healthy. Cupping is the oldest documented medical intervention, dating back to ancient Macedonia, circa 3300 BC¹. It has also been described in the Chinese traditional medicine 1550 BC for the treatment of certain ailments². The Father of medicine, Hippocrates recommended the use of cupping therapy in treating menstrual cramps and cardiac angina.

There are two different methods of cupping in practice, wet cupping and dry cupping. In the dry cupping technique, a suctioning cup is placed over the painful area or a reflex zone, pulls the skin and underlying tissue into the cup. Wet cupping uses the same principle but adds laceration of the skin and bloodletting¹³.

Prophet Mohamed (PBUH) has encouraged and supported the use of cupping in his 'hadeeth', "Indeed the best of remedies you have is hijama, and if there was something excellent to be used as a remedy then it is hijama."

* Breast & Oncoplastic Surgeon

** Surgical Intern

General Surgery Department

King Hamad University Hospital

Kingdom of Bahrain

Email: Sara.alreefy@khuh.org.bh; saraalreefy@hotmail.com

Furthermore, among the ancient scholars, Avicenna also believed that cupping is an effective remedy for several illnesses and described the methods of cupping in Canon.

Cupping is mainly applied for the treatment of chronic pain, and is proven to be effective in lowering the symptoms of lower back pain, neck pain, migraine and tension headaches⁴. Moreover, the effectiveness of cupping is being widely evaluated for other diseases such as metabolic syndrome, carpal tunnel syndrome, stroke rehabilitation and hypertension⁵.

However, despite its benefits in lowering the pain as well as other possible advantages, cupping can be associated with a variety of adverse effects. For instance, it has been demonstrated that cupping is associated with the development of different types of skin lesions⁶. In addition, the development of lipoma after a cupping session has also been reported⁷. Anemia and skin pigmentation are among the other adverse effects that have been documented following excessive cupping therapy⁸.

Bloodletting contributed to the death of President George Washington. However, bloodletting is still commonly practiced today in the Arab world⁹.

The aim of this case study is to alert other physicians about the possible side effects of cupping therapy if used in the wrong setting.

THE CASE

A 49-year-old Bahraini lady was diagnosed with stage two invasive ductal breast carcinoma with axillary lymph node involvement; she was treated at the breast clinic at King Hamad University Hospital, Bahrain. The patient underwent breast conserving surgery in the form of wide local excision with axillary node clearance in which 19 lymph nodes were retrieved; 3 of which were positive for metastatic cancer cells.

The patient had routine post-operative lymphedema prevention exercise instructions by the physiotherapy team and the breast surgeon gave clear instructions not to use needles in the arm where axillary clearance was done.

The patient was discharged from the hospital in good condition and excellent surgical recovery. Two weeks later the patient returned to the breast clinic with signs of early lymphedema. The patient admitted that she had done hijama (wet cupping therapy) as she thought it would treat her cancer based on her religious beliefs, after which she had noted swelling of her upper arm, see figure 1.



Figure 1: Lacerations of Wet Cupping Therapy in the Upper Arm with Lymphedema

The patient was treated with daily upper limb physiotherapy and compression bandage until the swelling resolved. She is currently on Chemotherapy to complete her oncology treatment for breast cancer.

DISCUSSION

Lymphedema is a condition of localized fluid retention, occurring as a result of an insult to the lymphatic system. It is most commonly reported following lymph node dissection, radiation therapy or surgery. However, any factor that results in the mechanical insufficiency of the lymphatic system can lead to the development of lymphedema. In fact, upper extremity lymphedema is the most common complication following breast cancer surgery. The incidence post-mastectomy ranges from 6-30%¹⁰. It is estimated that the incidence of lymphedema increases up to two years following breast cancer surgery¹¹. The most important risk factors for the development of lymphedema according to the American Cancer Society include tumor location in the upper outer quadrant, axillary trauma, infection, hematoma, seroma, a large number of axillary lymph nodes dissected, and axillary radiation¹⁰.

Since the method of wet cupping causes laceration of the skin with bloodletting, it could potentially act as an insult to the lymphatic system causing lymphedema.

To our knowledge this is the first case reported of lymphedema after wet-cupping in a patient with a history of breast cancer surgery and axillary node clearance in Bahrain.

CONCLUSION

Considering that the patient developed lymphedema despite her excellent medical condition following surgery and sufficient lymphedema prevention exercise by the physiotherapy team, we postulate that wet-cupping played a major role in the occurrence of lymphedema in this patient because she did it shortly after hospital discharge.

Author contribution: All authors share equal effort contribution towards (1) substantial contributions to conception and design, acquisition, analysis and interpretation of data; (2) drafting the article and revising it critically for important intellectual content; and (3) final approval of the manuscript version to be published. Yes

Potential conflicts of interest: No.

Competing interest: None. **Sponsorship:** None.

Submission date: 23 January 2014. **Acceptance date:** 2 February 2014.

Ethical approval: Research and Ethics Committee, King Hamad University Hospital, Bahrain.

REFERENCES

1. Ahmadi A, Schwebel DC, Rezaei M. The Efficacy of Wet-Cupping in the Treatment of Tension and Migraine Headache. *Am J Chin Med* 2008; 36(1), 37.
2. Cao H, Han M, Li X, et al. Clinical Research Evidence of Cupping Therapy in China: A Systematic Literature Review. *BMC Complement Altern Med* 2010; 10:70.
3. Lee MS, Kim JI, Ernst E. Is cupping an Effective Treatment? An Overview of Systematic Reviews. *J Acupunct Meridian Stud* 2011; 4(1):1-4.
4. Farhadi K, Schwebel DC, Saeb M, et al. The Effectiveness of Wet-cupping for Non-specific Low Back Pain in Iran: A Randomized Controlled Trial. *Complement Ther Med* 2009; 17(1): 9-15.
5. Michalsen A, Bock S, Lüdtke R, et al. Effects of Traditional Cupping Therapy in Patients with Carpal Tunnel Syndrome: A Randomized Controlled Trial. *J Pain* 2009; 10(6):601-8.
6. Franco G, Calcaterra R, Valenzano M, et al. Cupping-related Skin Lesions. *Skinmed* 2012; 10(5):315-8.
7. Schumann S, Lauche R, Hohmann C, et al. Development of Lipoma Following a Single Cupping Massage: A Case Report. *Forsch Komplementmed* 2012; 19(4):202-5.
8. Kim KH, Kim TH, Hwangbo M, et al. Anemia and Skin Pigmentation after Excessive Cupping Therapy by an Unqualified Therapist in Korea: A Case Report. *Acupunct Med* 2012; 30(3):227-8.
9. Vadakan VV. The Asphyxiating and Exsanguinating Death of President George Washington. Presented at the Annual Miranda Lecture Series of Kaiser Permanente Bakersfield 2002. *The Permanente Journal/ Spring 2004/ Volume 8 No. 2*.
10. Clark B, Sitzia J, Harlow W. Incidence and Risk of Arm Oedema Following Treatment for Breast Cancer: A Three Year Follow-up Study. *QJM* 2005; 98(5): 343-8.
11. Disipio T, Rye S, Newman B, et al. Incidence of Unilateral Arm Lymphedema after Breast Cancer: A Systematic Review and Meta-analysis. *Lancet Oncol* 2013; 14(6):500-15.