

TECHNICAL NOTE

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Skin Scraping, Cupping, and Moxibustion That May Mimic Physical Abuse

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ABSTRACT: Physical abuse and child abuse can manifest themselves as many different appearances. However, there are some cultural practices of Oriental medicine that may mimic physical and/or child abuse. This paper will discuss the practice of skin scraping, cupping, and moxibustion, which has been misdiagnosed as physical/child abuse by unfamiliar examiners.

KEYWORDS: forensic science, forensic medicine, skin scraping, cupping, moxibustion, physical abuse, child abuse, Oriental medicine

Physical abuse and child abuse can manifest themselves as many different appearances. In most jurisdictions, health care practitioners, teachers, police officers, firemen, forensic pathologists, social workers, and others are required by law to report any suspicion of child abuse and certain other forms of physical abuse. Patterns of skin injury from suspected child abuse often involve the upper and lower back. When an examiner sees erythematous lesions on atypical regions of the skin or unusual burn or bruising patterns, the suspicion of physical/child abuse is raised (1). However, there are some cultural practices of Oriental medicine that may mimic physical/child abuse. These practices include, but are not limited to, skin scraping, cupping, and moxibustion, which will be discussed in greater detail in this paper. There are other traditional Oriental medicine practices such as blood letting and warm needle acupuncture which will not be discussed because of the infrequency of use.

With the influx of Asian immigrants entering the United States, traditional Oriental health care methods are being practiced within their communities (2). In addition, there is an increasing number of people seeking unconventional medical treatment in the United States (3). Western health care examiners, who are unfamiliar with Asian beliefs and practices, have mistaken these traditional methods for child abuse and have resulted in false accusations.

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Suicide has been reported when a falsely accused father was jailed for child abuse (4).

The principle philosophy in Oriental medicine is to achieve a state of balance or equilibrium within the body, which includes the concept of energy (often called chi or qi). The energy in Oriental medicine can be interpreted in several forms, including flowing patterns often called channels or meridians. It is believed that if these energies are not flowing properly, the body becomes ill. This is one of many premises in Oriental medicine explaining how acupuncture works. For example, acupuncture needles are placed along meridians to facilitate energy balancing within the body. Achieving a state of equilibrium within the body when the body is ill can be done through diet, changes in lifestyle, exercise, acupuncture, herbs, skin scraping, cupping, and moxibustion (5).

Traditional Oriental medicine is used to treat a myriad of symptoms ranging from body aches, dizziness, joint pain, fever, gastrointestinal problems, headaches, to myalgias (5,6). Even among the various practitioners of Oriental medicine, the therapy of choice for each symptom can be different. We will discuss the practice of skin scraping, cupping, and moxibustion and their physical manifestations that can mimic physical/child abuse.

Skin Scraping

The term skin scraping will be used in this paper to be descriptive and consistent. However, skin scraping is also known as coin-rubbing, coining, kua-sha, spooning, and cao gio. Practitioners of skin scraping believe it to help relieve symptoms of headaches, fever, flu, heat strokes, and others by improving circulation and relieving inflammation within the soft tissue. The sites of skin scraping may include, but are not limited to, the occipital depression over the neck, both side of the thoracic vertebrae, both sides of the thyroid cartilage, the bridge of the nose, the inter-palpebral space, the anterior chest, and the flexor region of the elbows and knees (5).

Skin scraping is performed by first massaging the affected area with a mentholated ointment, or oil. The instrument used to perform the scraping can be the edge of a jar cap, coin, comb, or spoon. The instrument is then placed on the skin and firm downward strokes are used, usually in a paralleling and symmetrical pattern. Similar paralleling and symmetrical patterns of ecchymotic streaks on the skin are created, (Fig. 1).



FIG. 1—Bruising pattern seen from the results of skin scraping on the upper back.

Cupping

Cupping is a procedure used by practitioners to relieve symptoms such as stomach ache, abdominal pain, abscesses, and stroke paralysis by relieving local congestion. Cupping is believed to work by increasing circulation and helping eliminate toxins trapped in the tissues (7). In the cupping procedure, a cup or jar is placed on the person's skin at certain sites, usually over the general area of discomfort. The steps in this procedure are as follows: A cotton ball soaked in alcohol is lit and placed in the jar or cup. The cup or jar is then placed on the skin causing the flaming cotton ball to extinguish, from the consumption of oxygen. As the temperature in the cup or jar cools down, the skin is drawn into the jar, creating the characteristic circular ecchymotic lesion (7), (Figs. 2 and 3). The duration of cupping ranges from 5 to 20 min. Cupping can also be done in a moving fashion along the back or thigh to cover a greater area if a lubricant is used.

Moxibustion

Moxibustion is a procedure in which heat from a cigar shaped burning punk made from a dried moxa plant (*artemisia vulgaris*) is burned on or above the skin at acupuncture points (6,8), (Figs. 4a and 4b). This heat is thought in the Asian culture to stimulate acupuncture points and energy 'meridians,' thus increasing local blood circulation. The burning moxa can be placed on various

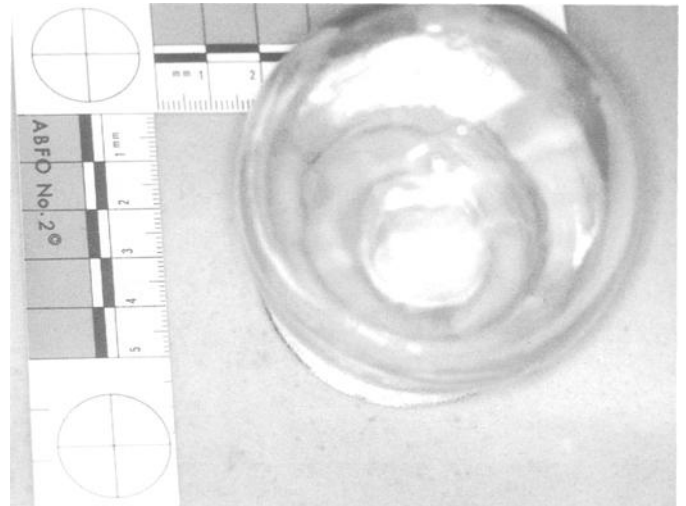


FIG. 2—Cupping method being performed on the skin.

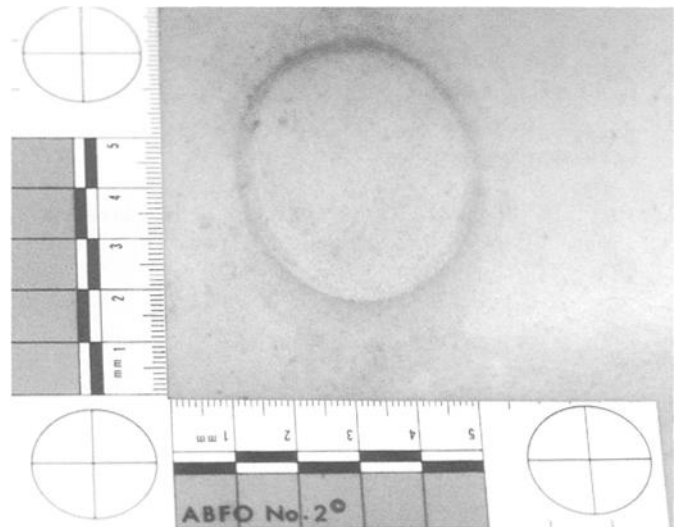


FIG. 3—Circular erythematous pattern injury resulting from cupping.

areas of the body either directly on the skin or indirectly with a medium separating the moxa from the skin. In most cases, moxibustion is placed indirectly on the skin resulting only in transient redness, (Fig. 5). However, if the moxa is burned directly on the skin, second degree burns may occur. Moxibustion is used to help relieve symptoms of asthma, low blood pressure, and pain (8).

Discussion

The prevalence of alternative medicine, including Oriental medicine, in the United States is greater than previously perceived and continues to grow (3). Oriental medicine is being practiced by immigrants for many reasons, including the unfamiliarity with Western medicine, limited access to traditional health care, and inability to communicate with health care providers (2). Among Southeast Asian refugees, one study reported 78% of individuals have used Oriental medicine for various ailments (2). However, there are currently no studies indicating the prevalence of Oriental medicine being practiced on infants, toddlers, and the general

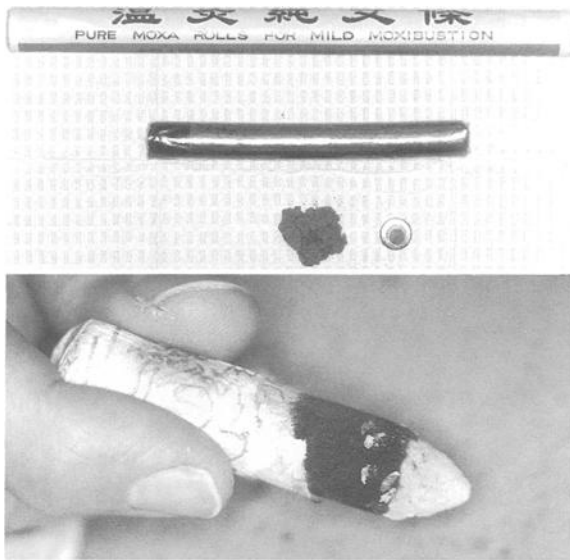


FIG. 4—*a*) Examples of different forms of moxa. The upper two moxa are in rolled form. The bottom left—loose moxa. The bottom right—indirect stick-on moxa. *b*) Moxibustion being performed on the skin.

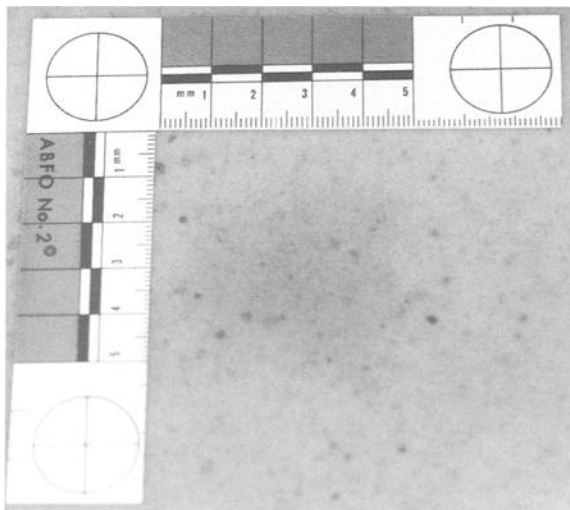


FIG. 5—Redness resulting from moxibustion use.

population. Therefore, it is important to recognize and be sensitive to the fact that such practices are being used.

Cupping, moxibustion, and skin scraping may be difficult to recognize because they are used to treat a variety of symptoms. One should not attempt to generalize the technique used and symptoms treated with the skin lesion. One practitioner, for example, may

use moxibustion for a headache and another practitioner would use skin scraping for the same symptom. In addition, specific elements of each procedure may be varied with the particular style of each practitioner. For example, when using moxibustion, one practitioner would use a nonflammable buffer between the skin and the heat source. Another practitioner would hold the heat source close to the skin without contact to the skin, and yet others may actually cauterize the skin. A detailed social history may help identify situations in which Oriental medicine is being used.

The examiner should also be aware of the various stages of healing patterns and factors that can affect an individual. Bruising patterns will depend on depth of injury, location of injury, force of injury, time length of trauma, and other factors (9). With any unusual skin trauma, the differential diagnosis must include the possibility of physical/child abuse and the physical manifestations of Oriental medicine.

It is beyond the scope of this article to adjudicate the possible legal implications of the parent and/or practitioner for injury that can occur with the use of such traditional practices. Also the authors do not judge the procedural propriety of these techniques. The reality is that methods, such as cupping, moxibustion, and skin scraping as well as others have been in use for thousands of years and will likely continue. Our hope is that examiners at all levels be cognizant of certain practices of Oriental medicines that may mimic as physical/child abuse.

References

1. Pascoe JM, Hildebrandt HM, Tarrier A, Murphy M. Patterns of skin injury in nonaccidental and accidental injury. *Pediatrics* 1979;64(2):245-7.
2. Buchwald D, Panwala S, Hooten TM, Use of traditional health practices by southeast Asian refugees in a primary care clinic. *Western J Med* 1992;152:507-11.
3. Eisenberg DM, Kessler RC, Foster C, Norlock FE, Calkins DR, Delbanco TL. Unconventional medicine in the United States. *New Engl J Med* 1993;328:246-52.
4. Nong TA. 'Pseudo-Battered Child' syndrome (letter). *J Am Med Assn* 1976;236(20):2288.
5. Sidel VW (forword). *A barefoot doctor's manual. Practical Chinese medicine and health.* New York: Gramercy Publishing Company, 1985.
6. *Essentials of Chinese acupuncture.* Beijing, China: Foreign Languages Press, 1980.
7. O'Conner J, Bensky D. editors. *Acupuncture a comprehensive text,* Shanghai College of Traditional Medicine. Seattle: Eastland Press, 1981.
8. Turner RN, Low RH. *The principles and practice of moxibustion.* Wellingborough: Thorsons Publishers Limited, 1992.
9. Berkowitz CD. Pediatric abuse. New patterns of injury, *Emerg Med Clin North Am* 1995;13(2):321-41.

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