

## Case Report

# Cheek Acupuncture For Post Traumatic Headaches – A Case Report.

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## Abstract

Cheek acupuncture therapy is a micro needling technique that involves stimulating specific points on the cheek to treat pain. It's based on three major theoretical systems: holography, Da San Jiao and physical/mental integration. Microneedles are inserted into specific acupoints on the cheek.

In this case the cheek acupuncture provided immediate pain relief posttraumatic injuries of the lumbar spine and bilateral wrists and achieved clinical remission after only one time's cheek acupuncture. Follow up at 3, 12 and 24 months after injuries, her headaches were completely relieved. Additionally, cheek acupuncture is nearly painless compared to classical acupuncture, which often cause sensations of soreness, numbness, swelling, and pain at the site of needling. Thus, cheek acupuncture represents an efficient approach for relieving neuropathic pain, and demonstrated its remarkable efficacy in relieving headaches resulting from posttraumatic pain syndrome, and provides a highly accepted and satisfactory therapy for postoperative or post injury pain, which is worthy of clinical promotion.

**Keywords** : acute pain, headache, cheek acupuncture, pain management

## INTRODUCTION

Cheek acupuncture which is established by Dr. Yangzhou Wang [7] which is a micro needling technique that involves stimulating specific points on the cheek to treat pain. Dr. Yongzhou Wang developed three major theoretical systems for cheek acupuncture: holography, Da San Jiao and physical/mental integration. These systems are based on the biological holographic theory developed by Yingqing Zhang [6], the anatomical structure of the human body, the Qi pathway of TCM and the physical-mental theory of Western medicine. Microneedles are inserted into specific acupoints on the cheek, and used to treat pain in the head, trunk, and limbs. It can be used to treat pain from nerve disorders, such as neuropathic pain.

For neuropathic pain induced by insults to CNS or peripheral nerve impingement or entrapment, taken analgesic medications sometimes are ineffective, may have side effects, or can lead to subsequent complications. In the present case study, cheek acupuncture proved to be highly effective in alleviating severe pain resulting from dysfunction to the CNS. In our case the cheek acupuncture provided

immediate pain relief post-traumatic injuries of lumbar spine and bilateral wrists and achieved clinical remission after only once cheek acupuncture. Additionally, cheek acupuncture is nearly painless compared to classic acupuncture, which often cause sensations of soreness, numbness, swelling, and pain at the site of needling. Thus, cheek acupuncture represents an efficient approach for relieving neuropathic pain, demonstrated its remarkable efficacy in relieving headaches resulting from posttraumatic pain syndrome.

## CASE PRESENTATION

A 43 years old female, fell down from 4 meters of the heights accidentally with fractured bilateral wrists and lumbar spine burst fractures of the L3 (Fig 1). She did not lose consciousness at the injury scene or later in hospital, denied any vision alterations and neurological symptoms in her limbs. Her wrist and lumbar spine fractures were treated with open reduction internal fixation 3 days post injury. She had persistent headache of bilateral forehead since she fell down from height, landed on her buttocks. Immediately back pain and headaches was recalled. Her head CT was done and

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cleared brain injuries by neurosurgical team. Her headaches were worsening after wrist and lumbar spine surgery with VAS scores 10 out of 10. Analgesics including PCA, medications (NSAIDs, Oxycodone, Gabapentin) even more stronger narcotics were unable to relieve her headaches. Any sounds or noise, sunlight, room lights were aggravating her headaches. Our pain team (Dr. Lu Yang) consulted patient and found tenderness at bilateral suboccipital area and superior orbital foramens (Fig 2). Cheek acupuncture was applied once. When the tenderness was solved with cheek acupuncture her headaches were immediately disappeared except wrist and low back pain which were managed with analgesics medications. Follow up at 3, 12 and 24 months after injuries, her headaches were not relapsed at all.

**Figure 1.** Radiographs showed bilateral distal radius comminuted intra articular fractures on A and B; Axial CT scan revealed burst fractures of L3.



**Figure 2.** The patient who had a severe headaches after spinal and wrist injuries falling from height had two cheek needle acupuncture (A and B) and her headaches immediately disappeared and did not relapse for last two years.



## DISCUSSION

In clinical practice, pain is a very common and challenging task that has bothered numerous patients and significantly affected their quality of life. Traditional pain managements, such as analgesics drugs therapies, have had some effectiveness, but they often come with substantial side effects, placing additional organ or tissue damages or drug addictions [1]. Cheek acupuncture therapy, as an emerging micro-needle treatment system (Fig 3), has gradually come to the forefront in the field of pain management, offering new hope to many patients suffering from pain [2-4].

This treatment regime is based on bio holism, the theory of the Da San Jiao system, and psychosomatic theory. This therapy thought that the cheeks contain a holographic microsystem that encompasses the entire body [5-6]. By needling specific acupuncture points on the cheeks, it is possible to treat systemic diseases, particularly proving significant efficacy in alleviating pain.

Cheek Acupuncture Therapy is playing an increasingly significant role in the field of pain management due to its unique theoretical framework and remarkable treatment outcomes. It offers new hope to many patients suffering from pain, enabling them to escape the agony of pain and return to a normal life. With limitation of analgesics drugs for management of the recalcitrant pain, it is expected that cheek acupuncture therapy will achieve broader applications and better therapeutic effects in future medical practice.

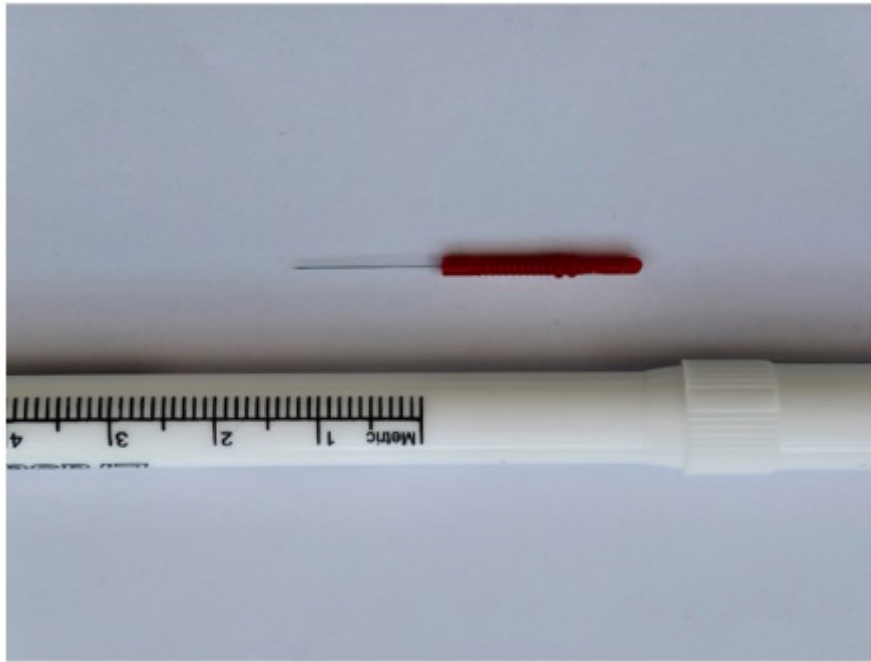
Holographic theory proposed that the face is a miniature representation of the entire body (Fig 4). Specific acupoints on the cheeks correspond to various parts of the body, and stimulating these points can regulate the functions of the corresponding areas, thereby achieving pain relief [6, 7]. Neural regulation theory believes that the needling acupoints on the cheeks can stimulate nerve endings, prompting the release of substances such as endorphins, which have analgesic effects. It also helps regulate the function of the

nervous system, restoring neural balance and alleviating pain [5, 8]. Meridian theory is related to traditional Chinese meridian theory, stimulating facial acupoints can unblock the meridians, promoting the smooth flow of qi and micro-blood circulations, which translates to the principle of "unobstructed flow means no pain," thereby alleviating pain. Acupoints are selected based on the pain location from detailed history and physical examination and the corresponding visceral and meridian areas on the face [6, 7, and 9]. For this patient, she complained headache after fall injury. Brain injury was ruled out by head CT scan. But tenderness in bilateral suboccipital area and superior orbital foramina was found during physical therapy. As shown in Figure 3, acupoints A and B corresponding to superior orbital foramen and suboccipital area on the cheeks were chosen. After adjusting the depth and direction of the needles, the patient's tenderness and headache disappeared.

Convergence in the trigeminocervical nucleus between nociceptive afferents from the field of the trigeminal nerve and the receptive fields of the first three cervical nerves might be the neuroanatomical basis for the patient's headache. Structures innervated by C1-C3 have been shown to be capable of causing headache. These are the muscles, joints and ligaments of the upper three cervical segments, but also include the dura mater of the spinal cord and posterior cranial fossa and the vertebral artery. Fall injury could irritate these area and cause headache [10,11].

After routine disinfection, specialized cheek acupuncture needles are quickly inserted into the acupoints. The depth of insertion varies according to the acupoint and the condition, generally being quite shallow. Using finch-pecking manipulation, the operator will usually feel a change in resistance under the needle. It not only alleviates pain but also regulates the functions of the corresponding viscera, nervous system, and qi and micro blood circulations, improving overall health status.

**Figure 3.** A photograph showed a cheek acupuncture needle in diameter of 0.16 mm.



**Figure 4.** A biological holographic model of the cheek acupuncture representing a miniature of the entire body. . Illustration representing a miniature over the human cheek that links to organs, tissues and neuroendocrinological systems (A and B are the acupoints for our case).



## CONCLUSION

This report provides a new approach referred to as cheek acupuncture for relieving severe headaches for a post traumatic headache patient who had failed analgesic medications for her pain reliefs. An immediate and accurate analgesia by cheek acupuncture was achieved for longer lasting clinical remission after 3, 12, and 24 months follow up respectively.

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