

Acupuncture treatment in facial paralysis (Bell's palsy)

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Abstract

Facial paralysis is a medical condition that occurs when there is weakness or loss of movement in the facial muscles. Acupuncture is a traditional Chinese medicine technique that involves inserting thin needles into specific points on the body to stimulate healing and alleviate pain. Acupuncture as a part of traditional Chinese medicine can help improve the symptoms of facial paralysis by promoting blood flow and nerve function in the affected area. In this article is presented a case of 33 year old man with right-side peripheral facial paralysis. The patient started the acupuncture treatment within 24 hours on the onset of the paralysis. The treatments were performed in a period of one and a half month. After 12 acupuncture treatments, the patient had an improved Brackmann's score (was able to lift the eyebrow and move the mouth outward). The selected acupuncture points are: GB16 Mu Chang, DU20 Baihui, GB14 Yang Bai, HN5 Taiyang, SI18 Quan Liao, ST6 Jiache, LI20 Ying Xiang, RN24 Cheng Jiang, LI4 Hegu, GB36 Waiqiu and SP6 Sanyinjiao. After 12 acupuncture treatments, the patient experienced significant improvement in facial muscle function from no movement to mild weakness. The patient also reported a significant reduction in pain and discomfort. Early acupuncture treatment has a great benefit for patients with peripheral facial paralysis.

Key words: paralysis, acupuncture, traditional Chinese medicine, Bell's palsy

Introduction

Facial paralysis, is a neurological disorder characterized by weakness or complete paralysis of the facial muscles due to damage or disruption of the facial nerve. This results in an inability to control facial movements and expressions, as well as other associated symptoms such as drooping of the eyelid or corner of the mouth, difficulty closing the eye on the affected side, drooling or difficulty controlling saliva, increased sensitivity to sound in one ear, and loss of taste sensation on the front two-thirds of the tongue, pain around the jaw or in or behind your ear on the affected side. Partial or more often complete paralysis is developed within hours, maximum to 72 hours. The prevalence of facial paralysis is slightly higher in women. Facial paralysis can occur at any age and the cause may be unknown. It is thought that facial paralysis is caused by inflammation and swelling of the nerve that is in control of the muscles located on one side of the face. A reaction of viral infection might be a cause too. Facial paralysis occurs more often in pregnant women, especially during the third trimester or in the first week after giving birth, in patients with upper respiratory infection, such as flu or cold, diabetes, high blood pressure or obesity.

Facial paralysis is diagnosed based on a physical examination of the face and assessment of the facial muscle function. The doctor asks the patient to perform various facial movements, such as closing the eyes, lifting the brow, showing the teeth and frowning, to evaluate the extent of facial weakness. Other conditions, such as stroke, infections, Lyme disease, inflammatory conditions and tumors, can present similar symptoms of facial muscle weakness, and may require additional testing to confirm or rule out a diagnosis of facial paralysis. [1] [2]

Most people with facial paralysis recover fully — with or without treatment within a period of three to six months. There's no one-size-fits-all treatment for paresis. Facial paralysis is typically treated with medications that can help reduce inflammation and swelling of the facial nerve, as well as antiviral drugs in some cases. [3]

Facial muscle paralysis due to facial paresis can lead to muscle shrinkage and shortening, which may become permanent if not addressed. To prevent this, a physical therapist can teach patient how to massage and exercise the facial muscles to help improve circulation

and prevent muscle atrophy also help retrain the facial muscles to move correctly and regain strength.

In Traditional Chinese Medicine (TCM), facial paresis or paralysis, also known as Bell's palsy, is attributed to the invasion of external pathogenic factors, specifically Wind and Cold, which obstruct the flow of Qi and Blood in the face. This can result in the dysfunction of the facial nerve and the muscles it controls, leading to weakness or paralysis of the facial muscles. TCM theory views the body as a whole, and considers the underlying conditions that may have contributed to the development of Bell's palsy, such as stress, exhaustion, or recent illness.

Acupuncture is a commonly used treatment for facial paresis in TCM. The World Health Organization (WHO) notes that acupuncture is an effective treatment in treating cases with facial paralysis. In China, there has been a long history in the treatment of peripheral facial paralysis with acupuncture, called "deviated mouth." Acupuncture involves the insertion of fine needles into specific points along the meridians, which are channels of energy that flows through the body. By inserting the needles at specific points, acupuncturists aim to stimulate the body's natural healing response and restore the flow of Qi and Blood in the affected area. The goal of acupuncture treatment for facial paresis is to increase blood flow and Qi to the affected area, reduce inflammation and swelling, and help restore function to the facial muscles. Other TCM treatments, such as herbal remedies, dietary therapy, and moxibustion, may also be used in conjunction with acupuncture to address the underlying conditions that may have contributed to the development of Bell's palsy. [4]

Case report

The treated patient presented in this research is a 33 year old man with right-side peripheral facial paralysis. The patient reported experiencing tingling and numbness on the right side of his face before developing weakness and drooping of his facial muscles. The patient was otherwise healthy and had no history of previous facial paralysis or neurological conditions. Upon examination, the patient was diagnosed with peripheral

facial paralysis, and acupuncture treatment was recommended. The patient received acupuncture treatment within the first 48 hours of symptom onset. The acupuncture treatments were made in acupuncture clinic for TCM and acupuncture in Skopje, North Macedonia by doctor specialist in acupuncture. The patient has made 12 acupuncture treatments in a period of one and a half month. The treatment duration was 30-45 minutes. Treatments were done indoor, on a room temperature, with normal acupuncture with fine sterile disposable needles sized 0.25x25mm. Acupuncture points used in the treatments are: GB16 Mu Chang, DU20 Baihui, GB14 Yang Bai, HN5 Taiyang, SI18 Quan Liao, ST6 Jiache, LI20 Ying Xiang, RN24 Cheng Jiang, LI4 Hegu (left and right),GB36 Waiqiu (left and right) and SP6 Sanyinjiao (left and right)

The patient's Brackmann score improved from IV to I, indicating a significant improvement in facial-nerve function following acupuncture treatment. This improvement in Brackmann score is consistent with the observed improvement in facial function, as reported in Table 1.

Table 1. Obtained results during the therapies in a period of one and a half month

Treatment Number	Complaint	House-Brackmann Score Difference between 2Sides (mm)
1	Motion : Forehead –none; Asymmetric smile, unable to whistle or drink through a straw, incomplete closure of the eye.	IV eyebrows =7 mm eyes = 3 mm lip = 5 mm
2	Motion : Forehead –none; Asymmetric smile, unable to whistle or drink through a straw, incomplete closure of the eye.	IV eyebrows = 7 mm eyes = 3 mm lip = 5 mm

3	Motion: Forehead -slight to moderate movement , complete closure of the eye with effort ,smile began to become more symmetrical, and there was energy in the right cheek, but the patient was unable to drink through a straw	III eyebrows = 5 mm eyes = 1 mm lip =4 mm
4	Motion: Forehead- slight to moderate movement. Smile began to become symmetrical, and there was energy in the right cheek, but the patient was unable to drink through a straw.	III eyebrows = 4mm eyes = 1mm lip = 4 mm
5	Motion: Forehead-slight to moderate movement, complete closure of the eye with effort Smile began to become symmetrical, the right cheek could be moved, and the patient could drink through a straw weakly.	III eyebrows = 3mm eyes = 1 mm lip = 3 mm
6	Motion: Forehead- moderate to good function, Eye complete closure with minimum effort. When closed, the mouth seemed almost normally symmetrical, the right cheek could be moved, and the patient could drink through a straw weakly. He can't whistle with his mouth.	II eyebrows =2mm eyes = 0 mm lip = 2 mm
7	Motion: Forehead – moderate to good function. Smile was almost symmetrical, the bottom lip began to contract, the right cheek could be moved, and the patient could drink through a straw.	II eyebrows =2mm eyes = 0 mm lip = 1 mm

8	The smile was almost symmetrical, and the lower lip began to contract. He start whistle with his mouth.	I eyebrows = 1mm eyes = 0 mm lip = 1 mm
9	The smile was almost symmetrical, and the lower lip began to contract.	I eyebrows = 1 mm eyes = 0 mm lip = 1 mm
10	The smile was almost symmetrical, and the lower lip began to contract.	I eyebrows = 1 mm eyes = 0 mm lip = 1 mm
11	Motion: Forehead –normal Eye –complete closure with no effort Mouth – symmetrical normal	I eyebrows = 0 mm eyes = 0 mm lip =0mm
12	Normal facial function and he is able to perform all related actions without any apparent difficulty	I eyebrows = 0 mm eyes = 0 mm lip = 0 mm

The patient reported feeling an improvement in his symptoms after the second acupuncture treatment. He reported a reduction in facial drooping and an increase in his ability to move his mouth and eyes on the affected side of his face. The patient received a total of 12 acupuncture treatments over a period of one and a half month. At the end of his acupuncture treatment facial paralysis had significantly improved. His ability to close

his eye and lift his eyebrow had returned to normal, and the asymmetry of his face had greatly reduced. After the last therapy he was able to perform all facial function and related actions without any apparent difficulty. The patient reported feeling more confident and comfortable in social situations and reported no side effects from the acupuncture treatment.

In TCM theory, peripheral facial paralysis, also known as Bell's palsy, is often attributed to an imbalance of Qi and blood flow in the affected area. Acupuncture treatment aims to restore balance and promote healing by regulating the flow of Qi and blood. In TCM, diseases are not generalized but instead, the focus is on finding the root cause of the problem and treating it. This approach is known as "treating the root and not just the branch." TCM doctors aim to resolve stagnation, balance the body's energy, calm the spirit, nourish the blood, Yin and Yang, relieve pain, benefit the brain, strengthen the organs, and expel pathogenic factors like wind, cold, heat, and dampness. TCM is a safe, effective, and natural system of healthcare that has been used for thousands of years. Its holistic approach to health and individualized treatment plans make it a valuable alternative to Western medicine.

Early acupuncture treatment during the acute stage of peripheral facial paralysis has demonstrated benefits for patient, as evidenced by an increase in both the effective rate and cure rate of treatment. [5] [6]

Conclusion

Acupuncture has been shown to be a safe and effective treatment for peripheral facial paralysis. This case study shows that acupuncture can help to shorten healing time and improve the overall effectiveness of treatment, particularly when administered during the acute stage of the condition. As a non-invasive and natural treatment option, acupuncture may be a valuable addition to the treatment plan for patients with peripheral facial paralysis, providing both local and general benefits to the body and promoting overall well-being.

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