To the Editor: A 20-year-old man reported with a complaint of diplopia for 10 days after a resection of cholesteatoma at left cerebellopontine angle (CPA). One and half months before the surgery, the patient suddenly had a shock and unbearable pain on his left cheek with no obvious incentives. The patient did not have facial hypoesthesia, hearing loss, diplopia, and other symptoms such as nausea and vomiting. Two weeks later, the pain became deteriorated, was induced easily by touching or washing face, and could not be controlled by oral drugs. Computed tomography showed lesions at the CPA area, and magnetic resonance imaging showed long T1 and T2 signals on the left CPA. Resection operation was applied, and the intraoperative pathological examination confirmed the diagnosis of cholesteatoma. After surgery, his left eye showed esotropia and could not pass the midline immediately, and the motility function of the right eye was normal [Figure 1]. Visual acuity of both eyes was 20/20. Computerized diplopia test showed abducens nerve palsy on the left side.

The patient received intraorbital electroacupuncture. The procedure performed was as follows: lying supine, the patient’s skin located in the ophthalmic rectus projection area was routinely disinfected. Then, the eye ball was gently pushed medially, while a needle with a diameter of 0.20 mm and length of 25 mm was slowly inserted into the left lateral rectus. Piercing depth was about 20 mm, four needles inserted intraorbital and four needles inserted orbitally. The physicians should adjust their piercing strength while using their thumb and index fingers to pinch: once there is a resistance or emptiness of the needle, they should immediately stop the needles. The model used was an electronic instrument, each group of electrodes was distinguished with different colors of wires to generate current stimulations of current 1.0–1.5 mA, voltage 9 V, frequency 1.5 Hz, and duration of 40 min. One course of the above treatment was once a day, 5 times a week. The abduct range of his left eye was expanded and diplopia was gradually improved during the treatment. At the 1st month, the patient’s diplopia was getting better without ocular position changes. At the 2nd month, the eyeball movement was reached the outer canthus while turning outward. Computerized diplopia test showed 50% decreased angle of diplopia deviation. After 3½ months, with 71 times of treatment, the patient was fully recovered with normal ocular motility and no diplopia [Figure 1]. There was no recurrence of abducens nerve palsy and epidermoid cyst during 1-year follow-up.

Cholesteatoma is the most common neoplasm located at the CPA, and it wraps up the abducens nerve and grows toward the ventral side of pons. The treatment is mainly dependent on surgical resection. Regularly, the complete resection was recommended to avoid recurrence, which could make the injury of abducens nerve palsy. At present, there is no effective rehabilitation therapy for ocular motor nerve palsy caused by brain surgery or trauma. Our team has applied the intraorbital electroacupuncture into clinical practice.

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practice and achieved great success. In this case, this therapy was performed on postoperative abducens nerve palsy. The blood circulation was promoted, and the contraction ability of left lateral rectus was improved by electroacupuncture stimulation. This method might be an effective intervention to help with eyeball movement disorder due to ocular motor nerve palsy induced by mechanical injury.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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