

# Acupuncture Treatment of Pain Dysfunction Syndrome after Dental Extraction

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## Summary

A successful treatment with acupuncture of a patient with Pain Dysfunction Syndrome is presented. The patient developed restricted mouth opening after removal of a third molar in the lower jaw. Despite orthodox treatment no improvement was noticed after three months, and his general practitioner was contacted. After two acupuncture sessions the patient felt normal and the jaw movement was within the normal range. A follow-up four weeks after the first treatment showed a further increase in the jaw movement. If restricted movement in the temporomandibular joint occurs after operative procedures in the mouth, acupuncture should be considered at an early stage.

## Keywords

*Acupuncture, trismus, pain dysfunction syndrome.*

## Introduction

Dental treatment can occasionally be rather traumatic, especially after extraction of impacted molars, where haematomas and trismus might occur. In most cases the swelling and restricted jaw movement disappears after one to two weeks without treatment. Occasionally the trismus persists, but responds normally to standard treatment, which consists of muscle relaxants such as diazepam, exercises, massage and ice treatment. In some cases the trismus persists despite correctly applied orthodox treatment, and the patient may develop a Pain Dysfunction Syndrome (PDS). The following sub-chronic case of PDS developed after extraction of a third molar, and was successfully treated with acupuncture.

## Presentation

This case concerns a 21-year old man who, in the beginning of June 2001, had a third molar removed in the lower jaw. Following the extraction he developed an infection and was treated twice with antibiotics. Due to pain, in particular headache, and limitation in opening the mouth, the patient had to take soft food for three months. No weight loss was noticed. The patient was diagnosed by his own dentist as suffering from: 'constrictio maxillarum / trismus myosis musculi

masticatorum', and was treated with diazepam 5mg twice a day, exercises, massage and ice treatment, all without effect.

## Treatment

Three months later the patient consulted his own general practitioner (29-10-2001), who elicited pain on palpation of the temporomandibular joint and the muscles of mastication, in particular the masseter and temporal muscles. At this stage the patient was able to open his mouth 1.3cm. He received acupuncture in a tender trigger point in the masseter and temporal muscle on each side. The needles were inserted in the muscles and rotated clockwise and anticlockwise until a de qi sensation was achieved. Thereafter the needles were removed. On cessation of this treatment, the patient was able to open his mouth 2.3cm.

At the next visit (31-10-2001) the patient was able to open his mouth 2.6cm. As at the previous consultation, tender trigger points were found in the same two muscles, and the patient received the same treatment. No instant response was noticed this time. However, at the following consultation (06-11-2001) the patient felt perfect and was able to open his mouth 3.8cm. Moreover, he had started to take normal food without problems. On palpation of the muscles of mastication, no tender

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trigger points were found, and no treatment was given. At a follow up (20-11-2001), the patient still felt perfect and was able to open his mouth 4.2cm.

### Discussion

PDS is defined as a combination of at least two of the following symptoms:<sup>1</sup>

- Pain on palpation of the temporomandibular joint
- Pain on palpation of the muscles of mastication
- Limiting and/or deviation of the jaw movement
- Jaw click and/or headache

It is well known that trigger points may develop in muscles after traumas.<sup>2,3</sup> Extraction of the third molar is occasionally a rather traumatic procedure, and it must be suspected that this procedure is a direct cause of trigger points developing in the masseter and temporal muscles. It has been shown that active trigger points in a muscle may cause shortening of the involved muscles,<sup>2,3</sup> which easily explains the patient's restricted mouth opening.

Acupuncture has proven effective in a number of papers in PDS.<sup>4-10</sup> Moreover, it has been shown that acupuncture may improve the movement in the temporomandibular joint, as assessed by a dysfunction index.<sup>11</sup>

In this case report a nearly instantaneous effect was noticed, and it is likely that this was due to the acupuncture treatment. The patient had had three months of conventional treatment with no noticeable improvement, and it is unlikely that the effect of acupuncture was due to a coincidence.

In conclusion, if restricted movement in the temporomandibular joint occurs after operative

procedures in the mouth, acupuncture should be considered at an early stage.

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