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Case Report

Bee venom apipuncture; a successful therapy for myofascial pain. A case based review

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ABSTRACT

A 58 years old man with widespread myofascial pain in dorsa lumbar paraspinal area and shoulder girdle muscles received whole bee venom injections (apipuncture) on trigger points and acupoint of Kid 3- 10, Ren 2-4 and UB 25. Before apipuncture injections intradermal allergy tests were performed. Patient experienced pain reduction at least 60 % following venom injections as measured by VAS, verbal description for pain intensity and unpleasantness, palpable muscle firmness and pressure pain thresholds. Bee venom which blocks muscle contraction by inhibiting nociceptive sensory impulses, appears to be an effective treatment on focal myofascial pain syndromes.

KEY WORDS: Apipuncture; Whole bee venom; Myofasial pain

INTRODUCTION

Myofascial pain is a common health problem involving paraspinal muscles, shoulder and lumbar girdle areas, characterized by trigger points and taut bands of muscles [1]. Misdiagnosis and inadequate management of this disorder after onset may lead to development of a complex chronic pain syndrome [2].

Bee venom (BV) is used in the treatment of different pain syndromes and neurologic conditions such as neck pain, low back pain, herniated disc pain, joint diseases, sprains and rheumatoid arthritis. Kwona YB et al. demonstrated that bee venom (BV) injection into the Zusanli acupoint produced a significantly more potent anti-inflammatory and anti-nociceptive effect than injection into a non-acupoint in a Freund's adjuvant induced rheumatoid arthritis (RA) model [3].

Researchers reviewed clinical trials of the use of BV for the treatment of both RA and osteo arthritis (OA) by apipuncture. The success rates in different clinical trials of BV applied as BV injections or apipuncture against RA ranges between 60 and 80 % [4]. Researchers report that BV apipuncture is as effective as cortisol treatment of RA as tested in arthritic rats [5].

It is estimated that 1 % of population is allergic to bee stings. Only a small percentage of those allergic to a honey bee sting will suffer an anaphylactic shock [6, 7].

However, until now, the focus of experiments and case reports has been musculoskeletal diseases, and to the best of our knowledge, a few studies on the use of apipuncture with whole bee venom to treat myofascial pain exists [8].

Therefore, this study reports a case of general pain in a 58 years old man with the whole bee venom apipuncture of local trigger points and energy points (St 36, kid 3, kid 6, Ren 3 and UB 25 on dorsum) after intradermal allergy tests [9].

MATERIALS AND METHODS

Collection of bee venom were made by a local beekeeper with electro-shock method with a standard device. 10 mg of venom was collected from two hives over a two hour period.

For injections, the venom was mixed with saline solution and at the time of injection it was taken from prepared solution. Ready-to-inject venom with set doses was prepared by certified pharmaceutical laboratories, in Sakarya University Complementary Medicine Research Center laboratory because of the need to maintain stringent aseptic conditions and to measure the doses very precisely. The diluted venom was kept refrigerated for a few weeks in well-sealed, dark glass containers.

Before acupoint injection of the whole bee venom, a small amount of venom administered 0.1mgr / ml for intradermal test to determine of whether the patient is allergic to the venom. Fig 1, Fig 2). If no allergic reaction developed, the therapy was carried out every other day by gradually increasing the number of injected points.

Figure 1. 0.1 mg bee venom intradermal allergy test.

Figure 2. 1 mg bee venom intradermal allergy test.

TREATMENT PROTOCOL

Only fresh BV apipuncture was administered. Firstly, St 36 and Kid 3-10 bilaterally were used at doses of 0.1 cc and 0.2 cc, respectively, as well as Sinsu (BL 23) and Gihaesu (BL 24) at a dose of 0.1 cc at each site bilaterally (Fig 3).

Figure 3. Acupuncture point St 36 bee venom injection.

The apipuncture treatment using these 9 points was conducted for 10 sessions. During that procedure, and CV 2 were selected to maintain the general energy effect, and the fresh BV apipuncture was administered at doses of 0.1 cc and 0.2 cc, respectively, every other day for 10 sessions.

EVALUATION

To evaluate the painful condition we had the patient complete Visual Analog Scale (VAS), verbal description for pain intensity and unpleasantness with scales of 0-100 mm, and researcher pointed palpable muscle firmness and pressure pain thresholds on scales of 0-100 mm.

RESULTS

The mean VAS score for pain and verbal description for pain intensity and unpleasantness were recorded 27 mm and 25 mm respectively, and the mean palpable muscle firmness score 33.2 mm, the mean pressure pain thresholds score was 34 mm. Results showed about 80 % decrease in all parameters (Fig. 4).

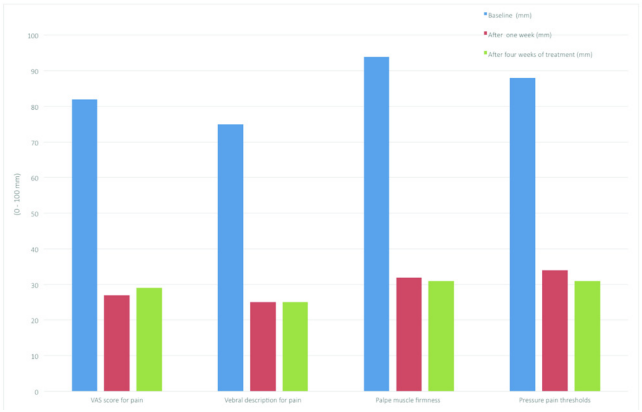

Figure 4. Evaluation of clinical parameters

A significant correlation was observed between VAS score for pain, verbal description for pain intensity and unpleasantness, palpable muscle firmness and pressure pain thresholds.

DISCUSSION

As the treatments continued, the symptoms of myofascial pain improved. After treatment, the results showed improved VAS scores and overall satisfaction. Based on the patient's subjective self-evaluation, he also showed improvements in the overall pain perception, his paraspinal back pain decreased, and generally he felt more confident in his life.

In the current literature very few comprehensive studies have been found on clinical application of bee venom for musculoskeletal pain. In a clinical trial reported by Jo and Roh [10] sweet bee venom was injected for the treatment of shoulder pain and facial numbness. But in this case report a serious allergy reaction appeared after first session.

In our case we did not observe any allergy sign and the treatment appeared to be effective in short and longer time in myofascial pain.

Although observing such features may be helpful, such sign as eye contact, patient reported subjective improvements of his brightness of eyes, volume of voice, in this circumstance, well-being in personal problems,

This study has limitations in that the result of one case cannot be generalized because of loss of control and insufficient number of subjects. Nevertheless, this study could be regarded as helpful to broaden the scope for using apipuncture with whole bee venom to treat myofascial pain syndromes. In the future, additional systematic research or randomized clinical trials in this area will be needed to find the ways to treat musculoskeletal pain problems using bee venom treatments.

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CONFLICTS OF INTEREST

The authors declare that there are no conflict of interest.

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