Type 1 Case of Yasui Classification

Nijutsuto with Added Aconite Root Ameliorated Severe Symptoms of the Frozen Shoulder: A Case Report

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Introduction

Frozen shoulder, also referred to as adhesive capsulitis, painful stiff shoulder, and periarthritis is a condition of uncertain origin characterized by spontaneous pain and stiffness of the shoulder. The condition is thought to be usually self-limiting although some patients have symptoms such as pain and/or functional loss for several years, moreover, complete resolution does not occur in many patients 1), 2). Effective standard pharmacological treatment of frozen shoulder is not established yet, acetaminophen and/or nonsteroidal antiinflammatory drugs (NSAIDs) may be used for pain control. However, there are no randomized controlled trials that confirm the effectiveness of NSAIDs in treatment of this pain. Sometimes even opioid analgesics may be required3). On the other hand, in Japanese traditional Kampo medicine, *nijutsuto* has been used for treatment of frozen shoulder. Many anecdotes about *nijutsuto* have been described in some Kampo textbooks and frozen shoulder is only one disease which is applicable for *nijutsuto* extract by medical insurance in Japan, however, there is no published peer-reviewed report about efficacy of *nijutsuto*. Besides, processed aconite root is one of the most important crude drug in Kampo treatment, it is used because of its analgesic action and ability to generate heat in the body. Aconite root is usually included in Kampo formula already or be added to some other formulas for modification. We report a case of woman who suffered from frozen shoulder and was successfully treated with *nijutsuto* with added processed aconite root.

Case presentation

A 56-year-old office clerk woman visited our department in June for complaints of her right shoulder pain deteriorating due to frozen shoulder. Around seven months before the visit, she had felt a nagging pain in her right shoulder and was diagnosed as frozen shoulder at the orthopedic clinic after X-ray exam and physical exam. Administration of a few NSAIDs, and several times of intra-articular injections by the previous doctor did not relieve her symptom. She could not continue to take pregabalin and duloxetine for their side effects. Her pain was getting severe enough to interfere with her daily activity (such as sleep disturbance, having trouble to hold a computer mouse at the job). She had a history of inactive old intracerebral hemorrhage and Rathke cleft cyst detected incidentally on magnetic resonance imaging at age 54 and appendicectomy at 16. Her height was 159cm, body weight was 45kg, blood pressure was 122/76mmHg and pulse rate was 88. Visual Analogue Scale (VAS) of shoulder pain was 30mm. Complexion and skin color was normal. Physical examination revealed significant restriction of both active and passive range of movement of her right shoulder, the other shoulder was intact. Auscultation of chest was normal, abdominal palpation revealed no abnormal mass or signs but operation scar of appendicectomy. No abnormal findings on blood analysis. In Kampo manners, abdominal strength was intermediate; brisk pulsation in the supra-umbilical region, right-lower abdominal tenderness, weakness of lower abdominal region and fluid retention in stomach were detected. Tongue was moist, pink and covered with thin white coating by tongue inspection. Pulse inspection revealed sunken, smooth and slightly string-like pulse. Sensitivity to cold, malaise and occasional headache were listed as her subjective symptoms. We diagnosed her as phlegm-fluid retention with spleen qi deficiency and prescribed 7.5g of *nijutsuto* (TSUMURA Co., Tokyo, Japan) added 6 tablets of *aconinsan tablet* (made from

powdered 1.0g *Aconiti* Radix Processa, Kakenshoyaku Co., Tokyo, Japan) per day. Her symptoms ameliorated soon after medication, especially sleep disturbance was improved. After increasing dose of aconite root to 1.5g per day at second visit, VAS decreased to 4mm on her next visit. Until sixteen weeks later since first visit, she sometimes forgot to take Kampo medicine because of obtaining almost remission of her symptoms, we prescribed no more medication from that time. We could ascertain that her symptoms completely improved 4 weeks later then we finished the treatment. No side effect was observed during treatment.

Discussion

The prevalence of frozen shoulder is estimated to be 2 to 5 percent of the general population; the condition is with the peak age in the mid-50s. Frozen shoulder occurs predominantly unilaterally and is usually self-limiting, although evidence about prognosis is limited[1), 2)]. According to UPTODATE[3)], frozen shoulder is commonly described as progressing through three phases; initial painful phase with development of shoulder pain that is worse at night, increasing stiffness that lasts for 2 to 9 months. Followed by an intermediate phase with stiffness and severe loss of shoulder motion, but with pain becoming gradually less severe, that lasts for 4 to 12 months Lastly, a recovery phase with a gradual return of range of motion that takes from 5 to 24 months to complete. In the present case, the patient was a woman in her 50s, the symptoms occurred unilaterally and remained at least 7months instead of taking common treatment. It can be said that the typical case, however, her symptom immediately ameliorated after administration of Kampo and disappeared in next 5months. Even though taking into consideration the natural course, we contemplate this treatment was effective. *Nijutsuto* has been used for pain in the arm or arms due to phlegm-dampness, that adaptation is mentioned in a source book "*Manbyou-Kaishun* (万病回春 wan bing hui chun, Restoration of Health from the myriad Diseases)" which is written in 1587 at Ming dynasty by Ting Xian Gong of China[4)]. "Manbyou-kaishun" has been widely read in Japan, Japanese Kampo specialists also described about effectiveness of *nijutsuto* in their books[5)]. Gyuzan Katsuki wrote that many pains in shoulders and arms belong to phlegm then *nijutsuto* is adaptive for it in "Gyuzan Katto". Teian Azai described that *nijutsuto* is effective for treatment of pain in hands and arms due to phlegm in his book[6)]. Koyama wrote that he would add aconite root to *nijutsuto* if the condition of frozen shoulder was at chronic phase[7)]. He explains that adding *Aconiti* Radix Processa meaning of activation and resolving old blood stasis. We added it for the purpose of enhancing analgesic effect and relieving cold in this case, it can also be thought that blood stasis existed.

Conclusion

We report about a case in which refractory frozen shoulder was ameliorated immediately after administration of *nijutsuto* adding aconite root. *Nijutsuto* with added aconite root can be one therapy for the treatment of frozen shoulder.

References

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