18. Symptoms and Signs

Reference

Nishizawa Y, Nishizawa Y, Fushiki S. Analgesic effects on headache in patients with spinal cord injury. *Nippon Zutsu Gakkaishi* (*Japanese Journal of Headache*) 1997; 25: 23-6. Ichushi Web ID: 2000154079

1. Objectives

To evaluate the efficacy and safety of chotosan (釣藤散) for relieving headache in patients with spinal cord injury.

2. Design

Double-blinded randomized controlled trial (DB-RCT).

3. Setting

Not mentioned (the first author belongs to a clinic), Japan.

4. Participants

Two hundred and fifty-one patients who complained of moderate or severe headache persisting for at least 6 months after spinal cord injury; had normal cognitive and communicative abilities; and had no other pain than headache.

5. Intervention

Arm 1: treatment with clonidine (9–13.5 μg) (n=33).
Arm 2: treatment with tizanidine (120–180 μg) (n=31).
Arm 3: treatment with chotosan (釣藤散; manufacturer, not specified) (90–120 mg) (n=30).
Arm 4: treatment with loxoprofen (3.6–4.8 mg) (n=34).
Arm 5: treatment with clonidine (9–13.5 μg) + chotosan (釣藤散; manufacturer, not specified) (90–120 mg) (n=31).
Arm 6: treatment with tizanidine (120–180 μg) + chotosan (釣藤散; manufacturer, not specified) (90–120 mg) (n=29).
Arm 7: treatment with loxoprofen (3.6–4.8 mg) + chotosan (釣藤散; manufacturer, not specified) (90–120 mg) (n=32).
Arm 8: treatment with lactose (90–120 mg) (n=31).

Test drugs were administered orally in capsules, 3 hours before meals, for 6 months. Other details, including the frequency of administration, were not available.

6. Main outcome measures

Headache evaluated on a Visual Analogue Scale for pain (VAS-P) for 8 hours starting from 30 minutes before the administration. After 6 months of treatment, pain and quality of life (QOL) determined using the McGill Pain Questionnaire and evaluated using a VAS and verbal descriptor scale. Clonidine concentrations in cerebrospinal fluid and plasma measured only in patients who received this drug.

7. Main results

A total of 221 (30 in arm 1, 29 in arm 2, 28 in arm 3, 25 in arm 4, 28 in arm 5, 27 in arm 6, 24 in arm 7, and 30 in arm 8) out of 251 participants were included in the efficacy analysis. VAS-P and QOL were significantly improved only in arms 1 and 5 compared with the control ($P<0.01$). Furthermore, the improvements in arm 5 were significantly greater than those in arm 1.

8. Conclusions

Chotosan enhances analgesic effect of clonidine for headache in patients with spinal cord injury.

9. From Kampo medicine perspective

None.

10. Safety assessment in the article

Adverse effects of clonidine were mentioned in the results section, but no details were given. Although 30 patients appear to have withdrawn during the 6-month treatment, no details were given either.

11. Abstractor's comments

This clinical study determined the effects of various drugs on headache due to spinal cord injury in 250 patients, and provided meaningful results which can be directly applied to clinical practice. The value of the paper would have been increased by inclusion of detailed descriptions of the administration method, adverse drug reactions, etc. As for study design, many ineffective control drugs were used in this study. From the perspective of ethics, the effects of those drugs should have been observed in a shorter-term study. Although this study was reported to be a "double blind test", the numbers of capsules administered varied between arms and some problems with blinding are suspected. Furthermore, results from the clinical evaluation of various drugs were reported along with the correlation of blood clonidine concentration and pain. Preferably, these results should have been described clearly and separately in the methods and results sections. Nonetheless, this is a meaningful clinical study that provided a lot of valuable data and clarified the efficacy of chotosan combination therapy.

12. Abstractor and date

Goto H, 22 September 2008, 6 January 2010, 1 June 2010, 31 December 2013.