19. Injury, Poisoning, and Postoperative Pain

Reference

Nakae H, Yokoi A, Kodama H, et al. Comparison of the effects on rib fracture between the traditional Japanese medicine jidabokuippo and nonsteroidal anti-inflammatory drugs: a randomized controlled trial. *Evidence Based-Complementary and Alternative Medicine* 2012; 837958. Pubmed ID: 22888367

1. Objectives

To evaluate the effectiveness and safety of jidabokuippo (治打撲一方) on rib fracture.

2. Design

Randomized controlled trial (RCT).

3. Setting

Three centers (Akita University Hospital and 2 others).

4. Participants

Rib fractures were diagnosed by X-ray and CT images. Patients who could not ingest, who had multiple injuries, or who were examined 4 days or more after the injury occurred were excluded. Young patients under 15 years and pregnant women were also excluded. (n=170)

5. Intervention

Arm 1: TSUMURA Jidabokuippo (治打撲一方) (Dosage and daily frequency not mentioned.) (n=85)

Arm 2: NSAIDs (Loxoprofen, diclofenac sodium, lornoxicam, etodolac, meloxicam, celecoxib, naproxen) (Dosage and daily frequency not mentioned.) (n=85)

In both groups, administration continued until the visual analog scale (VAS) score for pain due to rib fracture were less than 50% of the pre-administration score.

6. Main outcome measures

The study compared the period until the visual analog scale (VAS) score for pain due to rib fracture were less than 50% of the pre-administration score. At the same time, it compared the medical costs required in the 2 groups.

7. Main results

In arm 1, 3 of the patients switched to NSAIDs because their symptoms did not improve, and 1 patient could take jidabokuippo because of its taste, so a total of 4 patients were excluded. In arm 2, 2 of the patients switched to jidabokuippo because their symptoms did not improve, 1 patient could not continue administration due to dyspepsia, and 1 patient discontinued administration before the VAS score fell below 50%, so a total of 4 patients were excluded. In each group 81 participants were analyzed. The median treatment periods were 7 days in arm 1 (7-77 days), and 14 days (5-77 days) in arm 2, meaning a significantly shorter period in arm 1 than arm 2 (P=0.0003). The median medical costs were 509.3 yen (339.5-5,601.8 yen) in arm 1 and 1,581.3 yen (468.3-10,256.4 yen) in arm 2, meaning a significantly lower amount in arm 1 than arm 2 ($P < 0.0001$).

8.Conclusions

Jidabokuippo is more effective in improving pain from rib fracture compared to NSAIDs, and the medical costs required are less.

9. From Kampo medicine perspective

None.

10. Safety assessment in the article

Dyspepsia or other adverse effects were not observed in the jidabokuippo group, they were observed in 5 out of 85 patients in the NSAIDs group, however, there was no significant difference between the groups (P=0.0588).

11. Abstractor's comments

This clinical trial compared jidabokuippo to NSAIDs for their analgesic effect for pain from rib fracture, making it a valuable clinical trial examining the effects of a Kampo medication in the acute phase. However, the paper does not mention the drug dosages. Furthermore, while it was useful from a medical economy perspective, the medical costs of NSAIDs might be lower than jidabokuippo depending of the choice of NSAID. However, even after taking these points into consideration, jidabokuippo had few adverse effects, it did not require the combined use of gastric mucosal protective agents, etc., and appeared to effectively relieve pain from rib fracture. This clinical trial elucidated the effectiveness of Kampo medications in the field of orthopedics, suggesting further similar research into acute-phase pathologies and prescriptions is desirable.

12. Abstractor and date

Goto H, 18 May 2020.