

THE EFFECT OF RYUTAN-SHAKAN-TO(LONG-DAN-XIE-GAN-TANG) FOR PAINFUL BLADDER SYNDROME

Hypothesis / aims of study

Kampo is traditional medicine in Japan based on ancient Chinese medicine. Ryutan-shakan-to (Long-dan-xie-gan-tang) is one of Kampo extract which we can use now in Japan. It is for inflammations attended pain, congestion and swelling in the lower half of the body. Then it was used for urethritis, cystitis, leucorrhea increase, endometritis and so on before antibiotics coming on stage. The herbs which contained in Ryutan-shakan-to are rehmannia root 5 g, Japanese angelica root 5 g, Akebia stem 5 g, Scutellaria root 3 g, Plantago Seed 3 g, Alisma rhizome 3 g, Glycyrrhiza root 1 g, Gardenia fruit 1 g, Japanese gentian 1 g.

We tried to give Ryutan-shakan-to to the patients who had suffered from painful bladder syndrome. And we evaluated the effect of this Kampo extract by questionnaire and voiding diary.

Study design, materials and methods

There were 10 female patients who complain bladder pain, urgency and pollakiuria after the treatment with both antibiotics and anti-muscarinic drugs. The average age were 44.8 (maximum 69, minimum 27)

The patients tried to take Ryutan-shakan-to (made by TUMURA JAPAN) 7.5g 3× before meal for 4 weeks. They answered 3 questionnaire which already validated in Japanese and recorded voiding diary for 2 days and visual analogue scale for pain (VAS) before and after medication. The questionnaires were International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF), Overactive bladder symptom score (OABSS) and O'Leary and Sant questionnaire for interstitial cystitis (O'Leary and Sant.-Q).

Results

(ICIQ-SF) The 8 patients who had no incontinence before medication got no change. But the 2 patients who had some incontinence before medication got their symptoms worse. (OABSS) The average score of OABSS before medication was 3.4 (Maximum 6, Minimum 1) The score change after medication as follows: One score improvement 2 cases, 2 score improvement 2 cases, 3 score improvement 2 cases, No change 4 cases. There was a significant difference on OABSS before and after medication. (t-test, $p < 0.01$) (O'Leary and Sant.-Q) The average score of O'Leary and Sant.-Q before medication was 13.5 (Maximum 31, Minimum 5) The score change after medication as follows: Improvement (more than 10 points) 2 cases, Improvement (5-9 points) 2 cases, Improvement (1-4 points) 4 cases, No change 1 case, Get worse 1 case (6 points) There was a significant difference on O'Leary and Sant.-Q before and after medication. (t-test, $p < 0.05$) (VAS) The average score of pain scale before medication was 2.9 (Maximum 10, Minimum 0) The score change after medication as follows: 3 score improvement 3 cases, 1 score improvement 2 cases, No changes 4 cases, Get worse 1 case. (Average voiding times) The average of voiding times before medication was 11. (Maximum 18, Minimum 8) The change of voiding times after medication as follows: 5 times decrease 1 case, 4 times decrease 1 case, 3 times decrease 2 cases, 2 times decrease 1 case, 1 time decrease 1 case, No change 1 case, 1 time increase 1 case. There was a significant difference on the average of voiding times before and after medication. (t-test, $p < 0.05$) (Average voiding volume) The average of voiding volume at a time before medication was 167. (Maximum 225, Minimum 113) The change of voiding volume at a time after medication as follows: Increase (more than 30ml) 5 cases, No change (0-10ml) 4 cases Get worse 1 case

Interpretation of results

There were significant differences before and after medication in OABSS ($p < 0.01$), O'Leary and Sant-Q ($p < 0.05$) and average voiding times ($p < 0.05$) but no significant differences in ICIQ-SF, VAS and average voiding volume.

As the results, Ryutan-shakan-to may have an effect on pollakisuria caused by bladder discomfort more than bladder pain. Furthermore Ryutan-shakan-to has effect on irritation, hot flash and so on. Then decrease of average voiding times was owing to decrease of drinking volume. Ryutan-shakan-to may improve discomfort at bladder and whole body in painful bladder syndrome patients.

Concluding message

Ryutan-shakan-to may reduce bladder discomfort and voiding times in painful bladder syndrome.

FUNDING: none

CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS: This study was approved by the Yokohama Motomachi Women's Clinic LUNA Ethics Committee and followed the Declaration of Helsinki Informed consent was obtained from the patients.