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, leukorrhea 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, japanesr 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 complains 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 incontinece before medication got no change. But the 2 patients who had some incontinece before medication got their symptoms worse. (OABSS) The average score of OABSS before medicaiton was 3.4 (Maximum6, Minimum1) 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 medicaiton was 13.5 (Maximum31, Minimum5) The score change after medication as follows: Improvement(more than 10points) 2cases, Improvement (5-9points) 2cases, Improvement(1-4points) 4cases, No change 1case, Get worse 1case (6points) 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 medicaiton was 2.9 (Maximum10, Minimum0) The score change after medication as follows: 3 score improvement 3 cases, 1score Improvement 2 cases, No changes 4 cases, Get worse 1 case. (Average voiding times) The average score of voiding times before medicaiton was 11. (Maximum18, Minimum8) 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 medicaiton was 167. (Maximum225, Minimum113) The change of voiding volume at a time after medication as follows: Increase (more than 30ml) 3 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. Futhermore 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.