

### Clinical Report 3 (Japan)

#### *A Case of Migraine in which Goshuyuto was effective*

Makoto Arai

Department of Oriental Medicine  
Tokai University School of Medicine

---

[Case] 42 years, female, housewife

[Chief complaint] headache associated with nausea, stiffness of neck and shoulders

[Past history] at the age of 22 whiplash injury caused by traffic accident

[Family history] no appreciable disease

[Present illness]

The patient has been experiencing shoulder stiffness since her elementary school days, but since the whiplash injury she sustained 20 years earlier during a traffic accident, her neck also became stiff and painful. Moreover, about 10 years ago, headaches limited to the left parietal side developed, whereupon she was diagnosed with migraine. The headache had a pulsating character and developed every morning upon getting up, being restricted to the left parietal side and the attacks were preceded by an increasing feeling of heaviness of both shoulders, followed by pain behind the eyeballs, slight yawning, which was then followed by a severe headache feeling as if her head might split. During these headache attacks she took a therapeutic agent for migraine (Zomic®) and went to bed, but a slight delay in the timing of the drug intake resulted in the occurrence of epigastric discomfort and nausea, which in severe cases subsequently led to actual vomiting.

Moreover, the patient since her youth was excessively sensitive to cold and recently started to feel cold even immediately after a hot bath. Her sensitivity to cold had grown so much worse that her abdomen cooled shortly after such a bath and led to diarrhea.

She was introduced to our clinic by an acquaintance of hers who had been cured of headache using Kampo medicine and visited our Kampo ambulance first in January 2007.

[Present status] Height: 159 cm, weight: 65 kg, blood pressure: 120/78 mmHg, pulse: 68 bpm, regular. The tongue had no coating and showed slight dental impressions (caused by edema of the tongue, so that impressions of the teeth remain on its margin; in Kampo medicine considered to be a sign of water toxin) were observed. The pulse was deep and weak. The abdomen showed a mild degree of increased resistance and tenderness of the epigastric region (a certain degree of resistance upon palpation of the epigastric region) and right-sided fullness, tenderness or discomfort of the hypochondrium (a condition of strong tension along the hypochondrium), and furthermore tenderness of the left lower abdomen (an abdominal finding indicative of blood stasis). There was markedly increased muscle tonus extending from both shoulders to the neck. There was edema of both legs which felt cold on touch. Neurologic anomalies were not observed.

[Course] Targeting headache attacks associated with vomiting *goshuyuto* (Tsumura & Co., Ltd., Tokyo, Japan, 7.5 g, before every meal) was administered.

Three days after the patients started taking *goshuyuto* the headache decreased to half of its intensity and nausea had been alleviated. The analgesic (migraine therapeutic agent) the patient had been using daily became almost unnecessary and during 1.5 months following treatment begin she had used only 1 tablet. Since this prescription has caused such a dramatic improvement, the dose was later reduced, prescribing 5.0 g/day for

another month and the medication then discontinued.

[Discussion]

The formula “*goshuyuto*” is frequently used for the treatment of migraine. In other words, if migraine has been diagnosed by western medical methods, *goshuyuto* will often be effective, making this formula the drug of first choice. From a Kampo medical point of view it is effective not only for migraine, but also considered effective for headaches with the following characteristics.

- 1) Headache with a pulsating character or marked by tension, which in each case is both severe and frequently occurs in attacks.
- 2) Associated with the headache patients complain of epigastric discomfort and nausea, which are often accompanied by vomiting.
- 3) As a prodromal symptom for the headache patients complain of stiffness from the shoulders to the neck.
- 4) Generally, during attacks the feet are said to be extremely cold, but this must not necessarily be the case.
- 5) The abdominal pattern often allows one to observe a feeling of increased epigastric tension (uprising epigastric fullness), but this is not essential.
- 6) During attacks the pulse seems to be generally deep and slow. (I have never made a pulse diagnosis of a patient having an attack in my presence. During the intervals between attacks the pulse can also be floating.)

Again, in cases in which *goshuyuto* is effective, the time until the appearance of the effects too is comparatively short, so that symptoms generally often improve within a period of 2 weeks from the

start of the treatment.

*Goshuyuto* was originally mentioned in the section on the "terminal stage of the three yin diseases" in the "Shang Han Lun": '*goshuyuto* governs conditions in patients with headache dry vomiting and vomiting foamy sputum'<sup>(1)</sup>. The formula contains the four drugs: *Evodiae Fructus*, *Ginseng Radix*, *Zizyphi Fructus* and *Zingeris Rhizoma*, where " *Evodiae Fructus* " is the principal agent, that had been described by Todo Yoshimasu in his book "Yaku-cho" as 'this is the chief treatment for dry vomiting and fullness of the chest'<sup>(2)</sup>. It can be understood from these descriptions, that this formula is used not only for headache. Dry vomiting also seems to be a main indication. In actual clinical practice I emphasize among the above listed 6 characteristics in particular "paroxysmal headaches" and "nausea" when prescribing *goshuyuto*.

In the past, several reports on clinical research about *goshuyuto* have been published. Maeda et al. conducted a case series study during which they administered *goshuyuto* to 147 patients with chronic headache and found 'better than general improvement' in 55% ,and regarding usefulness, a 'better than useful' rating in 54% of the cases. A breakdown of the type of headache showed a tendency towards improvement in cases of vascular headaches and reported that the manifestations of therapeutic effects appeared in 52% of the patients within 2 weeks<sup>(3)</sup>. However, in this study the correlation between headache attacks and nausea was not investigated.

As alternative formulas, *goreisan* should be mentioned first. In actual clinical practice differentiation between the indications for these two formulas is not easy. In cases of association with dry mouth, reduced urine volume or edema, or else a tendency of the headache to occur

preferentially on days preceding rainfall and other characteristic symptoms clearly indicating the possibility of water toxin (uneven distribution of water throughout the body), the administration of *goreisan* should positively be considered.

I also have seen cases, in which headache and nausea were relieved after administration of *unkeito* for menstrual pain or *tokishakuyakusan plus goshuyuto* for cold abdominal colic (abdominal pain induced or aggravated by cold). Moreover, Keisetsu Otsuka, who contributed to the establishment of modern Kampo medicine, has also reported treating patients with migraine for long time using *ennenhangeto*<sup>(4)</sup>. Since all these formulas contain *Evodiae Fructus*, it would only be natural to expect a certain effect; I believe that comprehension of formulas like *goshuyuto* with few constituent drugs will promote the ability of skillful clinical application of various Kampo formulas.

## References

- 1) “Songban Shanghan-Lun” published by Zhao Kaimei of the Ming dynasty, p.275, Ryogen Co., Ltd., Tokyo 1988
- 2) Yaku-Cho. By Todo Yoshimasu. Collection of medical books on modern Kampo medicine 10, p.219, Meicho Publishing, Tokyo 1985
- 3) Koji Maeda, Atsushi Miyagi, Takehito Sugawara, others: Effects of *goshuyuto* for the treatment of chronic headache, Kampo Medicine 22; 53-57. 1998
- 4) Collection of Works by Keisetsu Otsuka, Vol. 4, p.258, Shunyodo Publishing Co., Ltd., Tokyo, 1980