



# A Case of Ramsay-Hunt Syndrome with Dysphagia Treated by a Comprehensive Traditional Korean Medicine Regimen Including Pharmacopuncture and Herbal Medicine

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Herpes zoster, a disease caused by the varicella-zoster virus (VZV), is characterized by painful, blistering lesions. Ramsay-Hunt syndrome (RHS) is a complication of a VZV infection that affects the geniculate ganglion, causing facial paralysis and auricular lesions. We describe a case of RHS with dysphagia in a 66-year-old woman, which was treated with a traditional Korean medicine (TKM) regimen. Her treatments included acupuncture, moxibustion, pharmacopuncture, thread-embedding therapy, herbal medicine, and steroids. Significant improvement was observed in both facial paralysis and dysphagia, demonstrating the potential efficacy of TKM for such cases. The present report highlights the need for further research into the specific treatments and acupoint selection for RHS and its associated symptoms.

**Keywords:** Dysphagia; *Ganoderma lucidum* herbal acupuncture; *Hominis placenta*; Pharmacopuncture; Ramsay-Hunt syndrome

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**Received:** August 7, 2024; **Revised:** August 20, 2024; **Accepted:** August 20, 2024  
**Published on:** October 17, 2024

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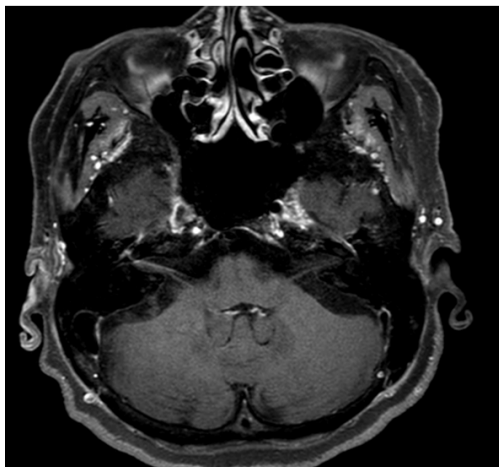
## INTRODUCTION

Herpes zoster (HZ) is a cutaneous disease caused by the varicella-zoster virus (VZV), which lies dormant in the body and then reactivates, causing painful, blistering lesions in a dermatomal distribution [1]. Ramsay-Hunt syndrome (RHS) occurs when the VZV invades the geniculate ganglion of immunocompromised individuals, resulting in the development of HZ in the auricle or ear canal, postauricular pain, and facial nerve paralysis [2]. Although VZV has been commonly reported to invade the facial nerve, the invasion of other cranial nerves is relatively rare. VZV invasion into the glossopharyngeal and vagus nerves results in dysphagia and odynophagia.

Considering RHS with dysphagia is rarely treated using traditional Korean medicine (TKM), we report a case of RHS with dysphagia that improved with TKM treatments combined with herbal acupuncture.

## CASE REPORT

On January 3, 2024, a 66-year-old woman presented with right facial paralysis and dysphagia, assessed using the House-Brackmann grading system (H-BGS) 4 and visual analog scale (VAS) of 10. On the same day, she was diagnosed with RHS based on the presence of simple peripheral facial nerve inflammation noted on cranial magnetic resonance imaging (MRI) performed at the Department of Neurology, Hospital A (Fig. 1), accompanied by vesicular blisters in the right auricular region. On Janu-



**Fig. 1.** T1-weighted brain magnetic resonance image. Enhancement along the cisternal, labyrinthine, geniculate, tympanic, and mastoid segments of the right facial nerve, suggesting the presence of probable neuritis.

ary 5, 2024, a videofluoroscopic swallowing study (VFSS) performed by the Department of Rehabilitation at Hospital A yielded the following results: Liquid “7” and Puree “3” by using the Penetration-Aspiration Scale (Table 1). From January 3 to 10, 2024, she was admitted to the Department of Neurology of Hospital A. On January 11, 2024, she was seen at Acupuncture 1 Department of the Oriental Medicine Hospital of Dong-Eui Medical Center as an in-patient to receive TKM treatment. She was treated until February 1, 2024.

### 1. Treatment method

#### 1) Acupuncture and moxibustion therapy

Disposable stainless steel needles (Dongbang Medical; 0.20 × 30 mm) were inserted at a depth of 10–20 mm twice daily and left in place for 15 minutes without adjustment. The patient was treated on the ipsilateral EX-HN3, GV26, ST4, ST6, ST7, ST3, ST1, LI20, TE23, BL2, GB1, and EX-HN5 acupoints, as well as contralateral LI4, ST36, GB15, SP3, and ST43 acupoints.

#### 2) Pharmacopuncture therapy

The patient was undergone 0.4–0.8 mL of *Hominis placenta* pharmacopuncture on the bilateral GB21, GB20, BL43, and ST25 acupoints once a day. The ipsilateral ST4, ST6, EX-HN5, LI20, GB1, and ST7 acupoints were treated with 0.4 mL of sweet bee venom (SBV), which is a detoxified bee venom herbal acupuncture treatment. The patient was treated with approximately 1 mL of *Ganoderma lucidum* or *H. placenta* pharmacopuncture on the bilateral ST9, ST10, CV6, and CV22 acupoints. After receiving *G. lucidum* pharmacopuncture once daily for 4 to 5 consecutive days, the patient received *H. pla-*

**Table 1.** Penetration-aspiration scale (PAS)

Score	Description
1	Contrast does not enter the airway
2	Contrast enters the airway, remains above the vocal folds; no residue
3	Contrast remains above the vocal folds, visible residue remains
4	Contrast passes glottis; no subglottic residue visible
5	Contrast contacts the vocal folds; visible residue remains
6	Contrast passes glottis; no subglottic residue visible
7	Contrast passes glottis; visible subglottic residue despite patient's response
8	Contrast passes glottis; visible subglottic residue; absent patient response

centa pharmacopuncture once daily for 1 day.

3) Other treatments

Thread-embedding therapy was performed on the affected side, targeting the frontalis, corrugator supercilii, nasalis, zygomaticus, and depressor labii inferioris muscles. Altogether, 15-20 threads were inserted at a direction parallel to the muscle fibers. The insertion depth was adjusted to ensure the threads were embedded within the soft tissue layer. The therapy was first performed on January 13, followed by five sessions at 1-week intervals, and concluded on February 20.

The patient received treatment with herbal medicines (Sayeoggaboglyeongsan, Table 2; Yeong-gyechulgamtang, Table 3; and Dongeui Hwalhyeoldan, Table 4 [Oriental Medicine Hospital of Dong-Eui Medical Center]) and steroids with a tapering regimen.

2. Instruments and scales

We utilized the H-BGS and Yanagihara's unweighted grading system (Y-system), which is commonly used in clinical practice to assess facial nerve paralysis. For dysphagia, the level of discomfort during hospitalization was scored using a VAS, with a score of "10" indicating the highest level of discomfort and "0" indicating no discomfort at all.

Table 2. Prescription of Sayeoggaboglyeongsan

Herb	Latin name	Amount (g)
<i>Glycyrrhiza uralensis</i>	<i>Glycyrrhiza uralensis</i>	6
<i>Poncirus trifoliata</i>	<i>Poncirus trifoliata</i>	6
<i>Bupleurum falcatum</i>	<i>Bupleurum falcatum</i>	6
<i>Paeonia lactiflora</i>	<i>Paeonia lactiflora</i>	6
<i>Poria cocos</i>	<i>Poria cocos</i>	6
<i>Citrus unshiu</i>	<i>Citrus unshiu</i>	4
<i>Pinellia ternata</i>	<i>Pinellia ternata</i>	4

Table 3. Prescription of Yeong-gyechulgamtang

Herb	Latin name	Amount (g)
<i>Poria cocos</i>	<i>Poria cocos</i>	8
<i>Cinnamomum cassia</i>	<i>Cinnamomum cassia</i>	6
<i>Atractylodes japonica</i>	<i>Atractylodes japonica</i>	6
<i>Glycyrrhiza uralensis</i>	<i>Glycyrrhiza uralensis</i>	4

3. Results

1) Facial nerve paralysis

On admission, the patient had grade IV facial nerve impairment based on the assessment using H-BGS, with no lip asymmetry in an expressionless state, incomplete closure of the eyes during eye opening and closing, and inability to form a complete right forehead wrinkle. Her symptoms included pooling of food when eating, leaking of water when drinking and brushing teeth, and entering of soapy water into the eyes when face washing.

After treatment, the patient's facial paralysis grade improved from 8 to 38 on the Y-system scale (Table 4) after treatment with acupuncture, pharmacopuncture, and herbal medicine, which are commonly used for the above-mentioned symptoms.

Table 4. Prescription of Dongeui Hwalhyeoldan

Herb	Latin name	Amount (g)
<i>Rehmannia glutinosa</i>	<i>Rehmannia glutinosa</i>	0.76
<i>Cervus nippon Temmink</i>	<i>Cervi Pantotrichum Cornu</i>	0.55
<i>Dioscorea batatas Decne</i>	<i>Dioscoreae Rhizoma</i>	0.47
<i>Ligusticum acutilobum</i>	<i>Ligustici Radix</i>	0.46
<i>Cornus officinalis Sieb</i>	<i>Corni Fructus</i>	0.46
<i>Paeonia suffruticosa Andrews</i>	<i>Moutan Cortex</i>	0.30
<i>Alisma canaliculatum All</i>	<i>Alismatis Rhizoma</i>	0.30
<i>Cibotium barometz</i>	<i>Cibotii Rhizoma</i>	0.23
<i>Moschus moschiferus</i>	<i>Moschi Moschus</i>	0.06
<i>Dryobalanops aromatica</i>	<i>Borneol</i>	0.01

Table 5. The patient's Yanagihara's score throughout the disease course

Date	January 11, 2024	January 18, 2024	January 27, 2024	February 20, 2024
At rest	2	2	3	4
Wrinkle forehead	1	2	2	4
Blink	2	3	4	4
Light closure of eye	1	2	3	4
Tight closure of eye	1	3	4	4
Closure of eye on the involved side only	1	1	2	4
Wrinkle nose	0	1	2	3
Whistle	0	0	1	3
Grin	0	3	3	4
Depress lower lip	0	3	3	4
Total	8	20	27	38

For detailed information, please refer to Table 5.

2) Dysphagia

The patient choked when swallowing solids and liquids and was unable to take in liquid herbal medicines and pills. On January 18, 2024, as the symptoms of dysphagia improved, she began taking pill “Dongueui Hwalhyeoldan,” which improved her kidney and liver functions. Then, on January 20, 2024, she was switched from a blended to a regular diet. On January 22, 2024, given the decreased frequency of choking incidents when consuming liquids, the daily dose of the liquid herbal medicine was increased from twice daily to thrice daily. On

January 27, 2024, the patient’s dysphagia disappeared, and the treatments related to the abovementioned symptoms were discontinued (Fig. 2).

For detailed information on the pharmacopuncture treatment and progress related to dysphagia, please refer to Table 6.

DISCUSSION

Although RHS can be diagnosed by VZV detection on polymerase chain reaction or immunofluorescence staining, our patient was diagnosed with RHS due to the presence of auricular vesicles, no central brain lesions on cranial MRI, and symptoms of facial paralysis, without performing any other tests.

Although RHS is not clearly categorized as a disease in the field of TKM, the facial nerve paralysis and vesicular rash associated with RHS have traditionally been treated using treatments for Bell’s palsy and HZ, respectively. Bell’s palsy is considered to be caused by the invasion of the facial meridians by the bad cold wind, causing edema and ischemia of the corresponding nerves [3]. Meanwhile, HZ is considered to be due to the stagnation of qi in the liver, dampness-heat in the spleen, and blood stasis due to qi stagnation.

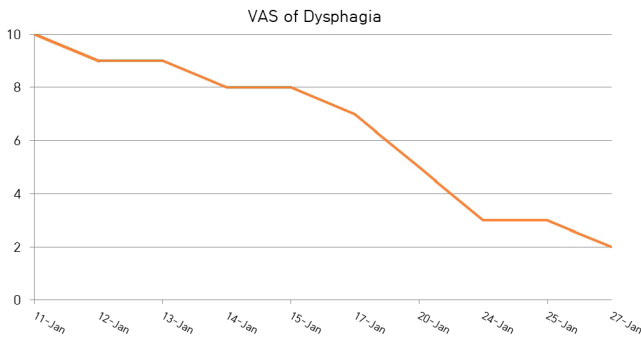


Fig. 2. Visual analog scale (VAS) of dysphagia.

Table 6. The improvement in patient’s dysphagia after receiving pharmacopuncture treatments

Date	Pharmacopuncture therapy	VAS	Note
January 11, 2024	1 mL of <i>Ganoderma lucidum</i>	10	Blended diet The patient choked on liquid, and the medication was administered twice daily
January 12, 2024	1 mL of <i>Ganoderma lucidum</i>	9	No special notes
January 13, 2024	1 mL of <i>Ganoderma lucidum</i>	9	No special notes
January 14, 2024	1 mL of <i>Ganoderma lucidum</i>	8	No special notes
January 15, 2024	1 mL of <i>Hominis placenta</i>	8	No special notes
January 16, 2024	-	8	No special notes
January 17, 2024	1 mL of <i>Ganoderma lucidum</i>	7	No special notes
January 18, 2024	1 mL of <i>Ganoderma lucidum</i>	5	The patient began to take Dongueui Hwalhyeoldan
January 19, 2024	1 mL of <i>Ganoderma lucidum</i>	5	No special notes
January 20, 2024	1 mL of <i>Ganoderma lucidum</i>	5	The patient’s diet was switched from a blended to a regular one
January 21, 2024	1 mL of <i>Ganoderma lucidum</i>	5	No special notes
January 22, 2024	1 mL of <i>Ganoderma lucidum</i>	5	As the patient began choking less on liquid, the medication was administered thrice daily
January 23, 2024	1 mL of <i>Hominis placenta</i>	4	No special notes
January 24, 2024	-	3	No special notes
January 25, 2024	1 mL of <i>Ganoderma lucidum</i>	3	No special notes
January 26, 2024	1 mL of <i>Ganoderma lucidum</i>	2	No special notes
January 27, 2024	-	2	End of therapy

VAS, visual analog scale.

Swallowing has traditionally been described according to the “oral,” “pharyngeal,” and “esophageal” phase and involves multiple cranial nerves, especially glossopharyngeal and vagus nerve. These nerves are interconnected, thereby stimulating the nucleus tractus solitarius triggers the swallowing reflex.

Although the mechanism for descending invasion of the lower cranial nerves is uncertain, several hypotheses exist. The most plausible hypothesis is that multiple anatomically adjacent cranial nerves can be infected by a virus, because the facial nerve joins the vestibular cochlear nerve and popliteal ganglion, and the vagus nerve is anatomically close to the glossopharyngeal nerve [4]. However, the mechanism of dysphagia with RHS is unclear, and the lack of other tests has prevented further identification of the cause.

In the present case, the onset of dysphagia coincided with the onset of RHS, with the dysphagia not caused by any disease. Therefore, VZV may have invaded the geniculate ganglion and simultaneously infected the trigeminal, hypoglossal, and vagus nerves involved in swallowing.

*H. placenta* and SBV pharmacopuncture has been proven effective in treating facial paralysis [5–8]. However, the efficacy of other pharmacopuncture treatments, including *G. lucidum* pharmacopuncture, for dysphagia is not as well documented.

The main components of *G. lucidum* include polysaccharides and triterpenoids. *G. lucidum* is involved in regulating innate and adaptive immunities and has anti-cancer, antibacterial, antioxidant, anti-inflammatory, and anti-obesity effects [9]. Particularly, it combats viral infections by activating macrophages, T lymphocytes, natural killer cells, and cytokines. It has been proven effective against viruses, including influenza virus, dengue virus, enterovirus 71, human immunodeficiency virus, hepatitis, herpes simplex virus, and respiratory syncytial virus [10].

Studies on white rats have demonstrated the effect of *G. lucidum* pharmacopuncture on capsaicin-induced atopic dermatitis and its protective effect on the gastric mucosa in ethanol-induced acute gastric ulcer [11,12]. However, research on the effect of *G. lucidum* pharmacopuncture on viral and neuroinflammation remains scarce.

Meridian pharmacopuncture, a theory developed by Dr. Nam Sang-cheon, involves injecting pharmacopuncture needles, categorized as yun (enrichment) and qi (energy) agents, into the meridians affected by excess or deficient yun and qi in the body. This facilitates the production

and circulation of yun and qi. *G. lucidum* pharmacopuncture is a qi agent used in “meridian pharmacopuncture,” whereas *H. placenta* pharmacopuncture is known to be a yun agent.

From the perspective of Dr. Nam Sang-cheon’s “meridian pharmacopuncture,” the patient with dysphagia caused by a viral infection was deficient in both “qi” and “yun,” considering various aspects such as body shape and skin glow [13]. RHS occurs due to the inflammation caused by the viral infection; thus, *G. lucidum* pharmacopuncture is used as a qi agent as treatment. However, supplying only qi properties may cause yun deficiency. As such, after four to five treatments of *G. lucidum* pharmacopuncture, *H. placenta* pharmacopuncture with yun properties was used in parallel.

Acupoints ST9, ST10, CV6, and CV22, which are located around the throat area, were selected for pharmacopuncture to treat dysphagia.

The present report presents a rare case of dysphagia-associated multiple cranial neuropathies caused by VZV. Given the lack of literature on herbal treatments for cases similar to our patient this study is significant because it has demonstrated that these treatments produced good outcomes for the abovementioned symptoms. However, one study limitation is the selection of acupoints in the throat, as there is a lack of previous case studies mentioning about the selection of acupoints. It is also unclear which therapy has been most helpful in treating dysphagia-associated multiple cranial neuropathies caused by VZV, given that a comprehensive TKM treatment regimen has been used.

## AUTHOR CONTRIBUTIONS

Conceptualization: GMK, HMY, SYK. Data curation: GMK, SYK. Formal analysis: GMK, JHP, HDK, SHP. Investigation: All authors. Methodology: All authors. Project administration: GMK, HMY. Visualization: All authors. Writing – original draft: GMK, SYK, HMY. Writing – review & editing: All authors.

## CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

## FUNDING

None.

## ETHICAL STATEMENT

This study was approved by the Dong-Eui University Institutional Review Board (IRB no.: DH-2024-07). Prior to study participation, the patient provided us with written informed consent on the academic use of her medical records and for answering the questionnaire.

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