

# Traditional Chinese therapy initiates oral feeding in a stroked woman after three years of nasogastric tube feeding

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### ABSTRACT

Banxia Houpu Tang, a traditional Chinese medicine, helped in initiating oral feeding in a stroke patient, after three years of nasogastric tube feeding. This Chinese medicine has potential in eliminating the need for nasogastric feeding and for physical restraints in geriatric individuals after a stroke.

**Keywords:** Aspiration pneumonia, Banxia Houpu Tang, nasogastric tube, physical restraints, traditional Chinese medicine

### Case Report

A 96-year-old woman was sustaining on nutrition through a nasogastric tube (NGT) for three years after the onset of stroke. She was physically restrained with mittens, as she attempted to remove the NGT. Her inability to understand the importance of NGT due to dementia led her to hate the process of insertion of the NGT and the physical restraints. Her swallowing reflex time was 9.5 sec, suggesting a high risk of aspiration pneumonia.<sup>[1]</sup> Results of repetitive saliva swallowing test also revealed the risk of aspiration. After administration of the extracts of the traditional Chinese medicine Banxia Houpu Tang (BHT) for four weeks through NGT, her swallowing reflex time improved to 3.5 sec, and the results of repetitive saliva swallowing test also improved. Subsequently, oral feeding was initiated, starting

from gelatinous foods to include mixer-ground foods of approximately 800 kcal. The NGT and the physical restraint of mittens were later removed [Figure 1].

### Discussion

The NGT is commonly used for feeding patients with dysphagia after stroke in Asian countries;<sup>[2]</sup> however, the long-term use of NGT and physical restraints can cause distress in patients, especially in geriatric patients with dementia. However, the risk of aspirating even a small amount of fluid was not significantly different before and after the removal of NGT, regardless of the swallowing function, cognitive level, or general functional level.<sup>[2]</sup>

It has already been reported that BHT can improve swallowing<sup>[3]</sup> and cough<sup>[4]</sup> reflexes and can reduce the risk of aspiration pneumonia in geriatric individuals.<sup>[5]</sup> Recently, BHT has also been reported to be effective in preventing aspiration pneumonia in patients after cardiovascular surgery.<sup>[6]</sup>

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**Figure 1:** Patient with the nasogastric tube and physical restraints (left) and after the removal of the nasogastric tube (right)

To the best of our knowledge, this is the first reported case of termination of long-term NGT treatment by using traditional Chinese medicine. In general, withdrawal of NGT in patients with dysphagia after stroke is difficult. BHT can initiate oral feeding in such patients.

In Japan, a primary health care physician is primarily involved in the provision of nutrition through NGTs at home or at the nursing home. Patient's quality of life can significantly improve if the administration of BHT can remove NGT and initiate oral intake. Primary health care physicians should always consider the possibility of removal of NGTs, and BHT can prove to be of indispensable help in such patients.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

### Author contributions

Koh Iwasaki and Motonari Kurachi treated the patient and conducted the literature search, data acquisition, data analysis,

and manuscript preparation. Tatsuya Nogami and Shin Takayama edited the manuscript and reviewed it. The final manuscript was read and approved by all authors. Further, all the authors meet the requirements of authorship and each author believes that the manuscript represents honest work.

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### Conflicts of interest

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### References

1. Nakagawa H, Sekizawa K, Ujiie Y, Takishima T. Risk of aspiration pneumonia in the elderly. *Chest* 1993;103:1636-7.
2. Kim G, Baek S, Park HM, Kang EK, Lee G. Effect of nasogastric tube on aspiration risk: Results from 147 patients with dysphagia and literature review. *Dysphagia* 2018;33:731-8.
3. Iwasaki K, Wang Q, Nakagawa T, Suzuki T, Sasaki H. The traditional Chinese medicine banxia houpu tang improves swallowing reflex. *Phytomedicine* 1999;6:103-6.
4. Iwasaki K, Cyong JC, Kitada S, Kitamura H, Ozeki J, Satoh Y, *et al.* A traditional Chinese herbal medicine, banxia houpu tang, improves cough reflex of patients with aspiration pneumonia. *J Am Geriatr Soc* 2002;50:1751-2.
5. Iwasaki K, Kato S, Monma Y, Niu K, Ohru T, Okitsu R, *et al.* A pilot study of banxia houpu tang, a traditional Chinese medicine, for reducing pneumonia risk in older adults with dementia. *J Am Geriatr Soc* 2007;55:2035-40.
6. Kawago K, Nishibe T, Shindo S, Inoue H, Motohashi S, Akasaka J, *et al.* A double-blind randomized controlled trial to determine the preventive effect of hangekobokutoon aspiration pneumonia in patients undergoing cardiovascular surgery. *Ann Thorac Cardiovasc Surg* 2019;18. doi: 10.5761/atcs.oa.19-00128. [Epub ahead of print].