

Comment on “Evaluation of Recurrence Factors and Gorei-san Administration for Chronic Subdural Hematoma after Percutaneous Subdural Tapping”

Akitake Okamura^{1*} and Yukihiko Kawamoto²

¹Department of Neurosurgery, Otagawa Hospital, Hiroshima, Japan

²Department of Neurosurgery, Mazuda Hospital, Hiroshima, Japan

Abstract

We previously reported the recurrence factors and the effect of Gorei-san on chronic subdural hematoma (CSDH) using percutaneous subdural tapping. Herein, we comment on less invasive surgical option and postsurgical administration for CSDH. Many factors for CSDH recurrence have been identified and categorized into four groups, namely: patient background, hematoma character, postsurgical administration, and surgical option. Patient background and hematoma character cannot be intervened for patients' specific problem. Gorei-san has been reported to prevent CSDH recurrence without adverse events even if administered for elder patients. Gorei-san inhibits aquaporin-4, which is expressed on the outer membrane of chronic subdural hematoma. We have good impression of prevention effect of CSDH recurrence especially for those who started Gorei-san before surgery. Several surgical options for CSDH are reported as follows: burr hole surgery, percutaneous subdural tapping, endovascular embolization of middle meningeal artery, and craniotomy. Although burr hole surgery has been performed worldwide as a standard procedure for CSDH, percutaneous subdural tapping has been developed to realize less invasive surgical option, which allows noninvasive measurement of initial hematoma pressure and eases the perioperative management due to rapid discharge.

Keywords: Chronic subdural hematoma; Gorei-san; Percutaneous subdural tapping

Introduction

We previously reported the recurrence factors and the effect of Gorei-san on chronic subdural hematoma (CSDH) using percutaneous subdural tapping [1]. Herein, we comment on less invasive surgical option and postsurgical administration for CSDH.

Many factors for CSDH recurrence have been identified and categorized into four groups, namely: patient background, hematoma character, postsurgical administration, and surgical option. Patient background and hematoma character cannot be intervened for patients' specific problem as follows: age, sex, neurological grading, alcohol, diabetes mellitus, antiplatelet agents, anticoagulant agents, trauma and midline shift on CT images, hematoma volume and initial hematoma pressure [1]. Therefore, patients who have recurrent CSDH should be reconsidered postsurgical administration and surgical option.

Many agents have been reported as recurrence preventing agents for CSDH as follows: etizolam, ibudilast, steroids, angiotensin converting enzyme inhibitors, Gore-san and Saireito. Gorei-san has been reported to prevent CSDH recurrence without adverse events even if administered for elder patients [2]. Gorei-san inhibits aquaporin-4, which is expressed on the outer membrane of chronic subdural hematoma. We have good impression of prevention effect of CSDH recurrence especially for those who started Gorei-san before surgery [1].

Several surgical options for CSDH are reported as follows: burr hole surgery, percutaneous subdural tapping, endovascular embolization of middle meningeal artery, and craniotomy. Of these options, burr hole surgery has been performed worldwide as a standard procedure for CSDH. Various subtypes of burr hole surgery are reported to prevent recurrence. Especially, irrigation with artificial cerebrospinal fluid and postsurgical drains substantially reduce recurrence rate [3,4]. On the other hand, percutaneous subdural tapping has been developed to realize less invasive surgical option for CSDH [5]. Percutaneous subdural tapping allows noninvasive measurement of initial hematoma pressure, which we reported as one of the risk factors for CSDH recurrence

[1]. Although most CSDH patients have difficulty in perioperative management for their elder age, percutaneous subdural tapping ease the management due to rapid discharge, which is usually one day after surgery. In cases of repeated recurrence of CSDH, endovascular embolization of middle meningeal artery or craniotomy should be considered [6].

References

1. Okamura A, Kawamoto Y, Sakoda E, Murakami T, Hara T (2013) Evaluation of recurrence factors and Gorei-san administration for chronic subdural hematoma after percutaneous subdural tapping. *Hiroshima J Med Sci* 62: 77-82.
2. Yasunaga H (2015) Effect of Japanese kampo medicine Goreisan on reoperation rates after burr-hole surgery for chronic subdural hematoma: Analysis of a national inpatient database. *Evid Based Complement Alternat Med* 2015: 817616.
3. Kuwabara M, Sadatomo T, Yuki K, Migita K, Imada Y, et al. (2017) The effect of irrigation solutions on recurrence of chronic subdural hematoma: A consecutive cohort study of 234 patients. *Neurol Med Chir* 57: 210-216.
4. Santarius T, Kirkpatrick PJ, Ganesan D, Chia HL, Jalloh I, et al. (2009) Use of drains versus no drains after burr-hole evacuation of chronic subdural haematoma: A randomised controlled trial. *Lancet* 374: 1067-1073.
5. Aoki N (1987) Percutaneous subdural tapping for the treatment of chronic subdural haematoma in adults. *Neurol Res* 9: 19-23.
6. Tempaku A, Yamauchi S, Ikeda H, Tsubota N, Furukawa H, et al. (2015) Usefulness of interventional embolization of the middle meningeal artery for recurrent chronic subdural hematoma: Five cases and a review of the literature. *Interv Neuroradiol* 21: 366-371.

*Corresponding author: Akitake Okamura, M.D., Department of Neurosurgery, Otagawa Hospital, 1-21-25 Hesakasenzoku, Higashi-ku, Hiroshima 732-0009, Japan; Tel: 082-220-0221; Fax: 082-220-2812; E-mail: akitake-okamura@hotmail.co.jp

Received April 04, 2018; Accepted April 24, 2018; Published April 30, 2018

Citation: Okamura A, Kawamoto Y (2018) Comment on “Evaluation of Recurrence Factors and Gorei-san Administration for Chronic Subdural Hematoma after Percutaneous Subdural Tapping”. *Int J Neurorehabilitation* 5: 313. doi: 10.4172/2376-0281.1000313

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