



Chronic Subdural Hematoma: A Questionnaire Survey of Management Practice in India and Review of Literature

Raghunath Avanali¹, Biju Bhadran¹, P. Krishna Kumar¹, Abhishek Vijayan¹, S. Arun¹, Aneeze M. Musthafa¹, Sunil Panchal¹, Vinu V. Gopal²

■ **OBJECTIVE:** To identify the current management modalities practiced by neurosurgeons in India for chronic subdural hematoma.

■ **METHODS:** A questionnaire was prepared for the survey and sent via e-mail to neurosurgeons. It covered the following aspects of managing chronic subdural hematoma: 1) demographic and institutional details; 2) choice of surgical procedure; 3) surgical adjuncts such as placing a subdural drain; 4) pre- and postoperative care; and 5) recurrences and management. Responses obtained were entered in a SPSS data sheet and analyzed.

■ **RESULTS:** Response rate of the survey was 9.3%. The majority of neurosurgeons (75%) preferred to do burr hole drainage for primary chronic subdural hematoma and also for recurrences. Only one third of routinely placed a subdural drain. Considerable practice variations exist for medical and perioperative management.

■ **CONCLUSIONS:** Bedside twist drill drainage, which is effective and less costly than operative room procedures, has not gained popularity in practice. The present survey points towards the importance of making management guidelines for this common neurosurgical entity.

etiopathogenesis of this entity, called it “pachymeningitis hemorrhagica interna” in his article published in 1857.² Its incidence ranges from 3.4 per 100,000 per year in patients younger than 65 years of age to 8.2 per 100,000 in patients older than 65 years of age.³ Considerable practice variations still exist with respect to management. These variations also may have additional influence on outcomes and rate of recurrence. Our survey was an attempt to document the various practice modalities adopted by neurosurgeons in India. This first nationwide survey on CSDH provides useful insight to the management practices in India for this common neurosurgical entity.

MATERIALS AND METHODS

Survey questions were prepared and entered in Google forms. The survey initially was conducted as a pilot study among 4 neurosurgeons working in 4 different states in the country. Corrections were made as per their suggestions, which we felt improved the readability of the questionnaire. The final form was sent by e-mail to neurosurgeons practicing in India. Nonresponders were again contacted at 4 and 6 weeks, and the study was closed on 12th week. The questionnaire used is given in **Table 1**.

Data were entered in SPSS version 16 (SPSS Inc., Chicago, Illinois, USA). Differences between categories were assessed by χ^2 test and P value less than 0.05 was taken as significant.

RESULTS

Of the 700 surveys that were received at the recipient e-mail addresses, 65 were returned and thus response rate was 9.3%; however, 4 surveys were incomplete and hence were discarded from the analysis. Therefore, the study is based on the analysis of practices of 61 neurosurgeons working in different parts of the country.

INTRODUCTION

Chronic subdural hematoma (CSDH) is a commonly encountered condition in neurosurgical practices. It is also one of the oldest documented neurosurgical conditions.¹ Historically, Rudolph Virchow on explaining the

Key words

- Burr hole drainage
- Chronic subdural hematoma
- Twist drill craniostomy

Abbreviations and Acronyms

ACE: Angiotensin-converting enzyme
CSDH: Chronic subdural hematoma
CT: Computed tomography

From the ¹Department of Neurosurgery, Govt. T.D. Medical College, Alappuzha; and ²Department of Neurosurgery, Government Medical College, Kottayam, Kerala, India

To whom correspondence should be addressed: Raghunath Avanali, MCh in Neurosurgery [E-mail: raghunimhans@yahoo.co.in]

Citation: *World Neurosurg.* (2016) 96:355-361.
<http://dx.doi.org/10.1016/j.wneu.2016.09.010>

Journal homepage: www.WORLDNEUROSURGERY.org

Available online: www.sciencedirect.com

1878-8750/\$ - see front matter © 2016 Elsevier Inc. All rights reserved.

Table 1. Survey Questionnaire

1. Kindly state the location of your institution
 - Urban
 - Semi-urban
 - Rural
2. Please state your institutional setup
 - Government teaching hospital
 - Government nonteaching hospital
 - Private teaching hospital
 - Private nonteaching hospital
3. What is the approximate number of cases managed annually
 - Up to 50
 - 50–100
 - 100–200
 - >200
4. What is your preferred mode of surgical intervention
 - Twist drill craniostomy single
 - Twist drill craniostomy double
 - Single burr hole <2.5 cm
 - Double burr hole each <2.5 cm
 - Mini-craniectomy >2.5 cm
 - Craniotomy
5. Preference for subdural drain at the end of the procedure
 - No subdural drain
 - Drain is used if effluents are not clear
 - Drain used if brain is not surfacing
 - Drain used if either of the above 2
 - Drain is used routinely
6. Duration of drain
 - <48 hours
 - 48–72 hours
 - >72 hours
7. Wash of the subdural cavity
 - No wash is performed
 - Until the clots/thick part is out
 - Thorough irrigation till the effluents are clear
8. Dural closure strategy
 - No dural closure as it is widely coagulated
 - Gel foam is used to plug the defect
 - Burr hole buttons are used
 - Dura is closed

Continues

Table 1. Continued

9. Follow-up CT of the head/other imaging
 - Routinely within 3 months
 - Routinely after 3 months
 - Only if the symptoms reoccur
10. Preferred intervention for first recurrence
 - Twist drill
 - Burr hole
 - Craniectomy
 - Large craniotomy
 - Shunts
11. Second recurrence
 - Twist drill
 - Burr hole
 - Craniectomy
 - Large craniotomy
 - Shunts
12. For first and second recurrence, if managed with craniotomy, how do you tackle inner membrane?
 - Excision of inner membrane
 - Multiple incisions of inner membrane
13. Are you using a trial of medical management for less symptomatic patients?
 - No
 - Mannitol
 - Steroids
 - Tranexamic acid
 - All
14. Antiepileptic policy
 - Only if history of seizures
 - Routinely for less than 1 month
 - Routinely greater than 1 month
 - Long-term/lifelong
15. Would you like to comment anything extra
Text box is provided
16. Treatment plan for patients on Anti platelets/anticoagulants
Text box is provided
17. How would you like to rate your recurrence rate
 - Do not wish to comment/not calculated
 - Comparable with the literature
 - More than the literature
 - Less than the literature

CT, computed tomography.

Download English Version:

<https://daneshyari.com/en/article/5635041>

Download Persian Version:

<https://daneshyari.com/article/5635041>

[Daneshyari.com](https://daneshyari.com)