



Spontaneous Rapid Resolution of Acute Subdural Hematoma: Revelation in the Era of Modern Science

Ramesh Chandra Vemula¹ BCM Prasad¹ Hanuma Naik Banavath¹ Sreeram Gokanapudi¹
Kalakoti Chandra Sekhar Reddy¹

¹Neurosurgery, Sri Venkateswara Institute of Medical Sciences, Tirupati, Andhra Pradesh, India

Address for correspondence Hanuma Naik Banavath, MCH, Sri Venkateswara Institute of Medical Sciences, Tirupati, Andhra Pradesh – 517507, India (e-mail: hanumanaik.banavath@gmail.com).

Indian J Neurotrauma 2022;19:132–133.

Abstract

Acute subdural hematoma (SDH) with mass effect and midline shift is an indication for emergency surgery in neurotrauma. A very few case reports were present in the literature showing rapid resolution of acute SDH with improvement in clinical condition of the patient within hours after trauma. In this article, we presented a case of acute SDH that showed almost disappearance of hematoma within 5 hours after trauma.

Keywords

- ▶ head injury
- ▶ acute SDH rapid resolution
- ▶ miracle in the science
- ▶ revelation in modern science

Introduction

Acute subdural hematoma (SDH) is one of the common causes for mortality due to trauma that is associated with high mortality. A few cases showed sudden rapid resolution of hematoma without any intervention. Till now only few cases were reported that showed rapid resolution of SDH with improvement in clinical condition.

Case Details

A 74 years old male patient presented with a history of sustaining injuries due to trauma. He lost consciousness immediately after trauma for a period of 10 minutes and regained consciousness but drowsy. He was evaluated with computed tomography (CT), which was done after 1 hour from the time of trauma and diagnosed to have a right frontoparietal acute SDH with mass effect and midline shift with right temporal bone fracture.

Patient was referred to our hospital for surgical management. On presentation, Glasgow Coma Scale (GCS) was E2V5M6 (13/15). He was planned for emergency surgery in view of thick acute SDH and midline shift in the outside scans (▶ **Fig. 1**). At our institute, he underwent repeat CT brain while shifting to the operation theater in view of improved GCS of the patient. This CT scan was done after 5 hours from the time of trauma and it showed complete resolution of frontoparietal acute SDH with tentorial SDH with only thin hematoma in temporal region (▶ **Fig. 2**). Surgery was abandoned and patient was admitted and kept on observation for 48 hours and discharged.

Discussion

Only a few case reports of rapid resolution of spontaneous resolution of acute SDH were reported till now.

There are two possible mechanisms proposed: “cerebrospinal fluid (CSF) washout effect” through arachnoid tears and “compression and redistribution” of hematoma.¹

published online
September 12, 2022

DOI <https://doi.org/10.1055/s-0041-1739476>.
ISSN 0973-0508.

© 2022. Neurotrauma Society of India. All rights reserved.

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

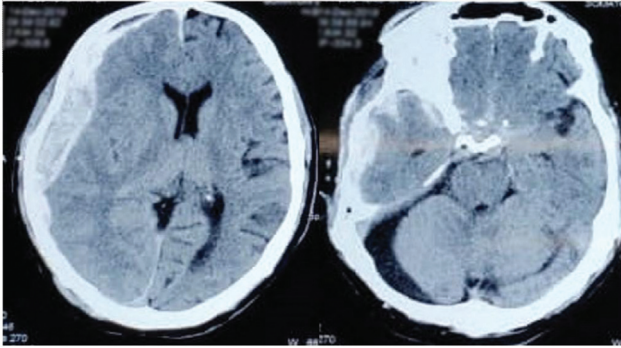


Fig. 1 Computed tomography scan done after 1 hour of trauma.

In first mechanism, associated arachnoid tears allow flow of CSF into subdural space that dilute the hematoma and reabsorb back in subarachnoid space. In second mechanism, increased intracranial pressure and cerebral swelling result in compression and redistribution of hematoma in interhemispheric and cerebellar tentorium subdural spaces.

A few cases of rapid resolution of acute SDH, associated with brain atrophy due to age, arachnoid tear in cyst wall with mixing of CSF, and hematoma, have been postulated.²

In this case, acute SDH disappeared within a span of 4 hours between the scans. In this patient of elderly age with brain atrophy that causes well-defined cisternal spaces and presence of tentorial subarachnoid hemorrhage without any increase in subgaleal hematoma thickness in the repeat scan supports the drainage of blood into the CSF cisternal spaces.

Conclusion

Rapid resolution of acute SDH is a very rare yet possible phenomenon. So, we recommend repeat evaluation with CT brain study if the previous scan was done 6 hours before when patient showed improvement in clinical condition.

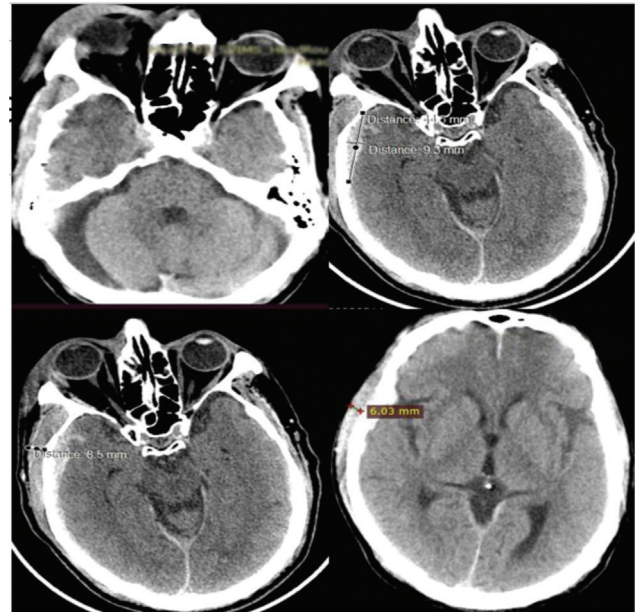


Fig. 2 Computed tomography scan done after 5 hours of trauma.

Conflict of Interest

None declared.

References

- 1 Tsui EY, Fai Ma K, Cheung YK, Chan JH, Yuen MK. Rapid spontaneous resolution and redistribution of acute subdural hematoma in a patient with chronic alcoholism: a case report. *Eur J Radiol* 2000;36(01):53–57
- 2 Ozay R, Fesli R, Balkan S, Turkoglu E, Sekerci Z. Rapid resolution of an acute subdural hematoma in Dandy Walker syndrome. *Neurol India* 2015;63(02):286