



Case report

Ataxia associated with an interhemispheric subdural hematoma: a case report

Johanna C Schilder and Martijn Weisfelt*

Address: Department of Neurology, Kennemer Gasthuis, Boerhaavelaan 22, 2035 RC, Haarlem, The Netherlands

Email: JCS - jschilde@kg.nl; MW* - weisfelt@kg.nl

* Corresponding author

Received: 30 December 2008 Accepted: 20 July 2009 Published: 12 August 2009

Cases Journal 2009, **2**:8876 doi: 10.4076/1757-1626-2-8876

This article is available from: <http://casesjournal.com/casesjournal/article/view/8876>

© 2009 Schilder and Weisfelt; licensee Cases Network Ltd.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

Interhemispheric subdural hematomas are uncommon lesions. This case report describes a 77-year-old woman using anticoagulants who suddenly developed headache and ataxia of both legs. Computed tomography of the brain revealed an interhemispheric subdural hematoma, which was treated conservatively. Interhemispheric subdural hematomas should be considered in patients, especially in those using anticoagulants, even in the absence of trauma.

Introduction

The exact incidence of interhemispheric subdural hematomas (ISH) is unknown. Only about 100 cases have been described in detail since the first description by Aring and Evans in 1940 [1].

The generally accepted causative mechanism for the development of ISH is tearing of the fixed bridging veins between the medial cerebral cortex and the superior sagittal sinus. ISH are associated with trauma in 83-91% of cases [2,3]. Other reported causes include use of anticoagulants, hemodialysis, aneurysmal bleeding and penetrating injuries [1]. ISH occur most often between the 6th and 8th decade and men are more often affected than women (male-to-female ratio 1.87:1) [3]. Patients often present with impairment of consciousness or contralateral hemiparesis with predominant involvement of the lower limb due to the physical representation of the primary motor cortex (homunculus). Other symptoms can include focal or generalized seizures,

cognitive impairment, gait disorders and oculomotor nerve palsy [3].

Case presentation

A 77-year-old Dutch Caucasian woman presented with a 2-day history of slight headache and progressive walking problems. No recent head trauma had occurred. Past medical history was extended including diabetes, ischemic stroke, hypertension and heart failure. She had been using among others an oral anticoagulant agent because of atrial fibrillation and mitral valve replacement. Neurological examination was unremarkable except for a disturbed heel to shin coordination test and an inability to walk without support. Results of laboratory studies revealed no significant abnormalities and an International Normalized Ratio of 2.6. Computed tomography of the brain showed a 5 mm thick linear hyperdense lesion extending along the right side of the interhemispheric fissure (Figure 1A and B). Because of the stable neurological condition the patient was admitted for

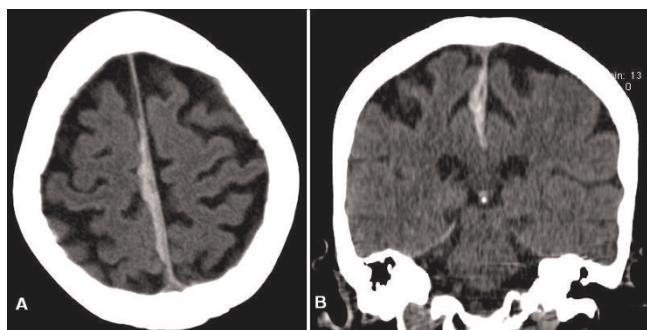


Figure 1. (A,B) Computed tomography of the brain on admission shows a 5 mm thick linear hyperdense lesion along the right side of the interhemispheric fissure.

observation and treated conservatively. The anticoagulant agent was stopped and gradual improvement was noticed in a few days. Five days after admission she was able to walk without assistance and she was discharged from the hospital. Two weeks later the patient was in excellent condition. Computed tomography of the brain revealed no signs of a rebleed and showed a hypodense lesion representing the known interhemispheric subdural hematoma of older age (Figure 2).

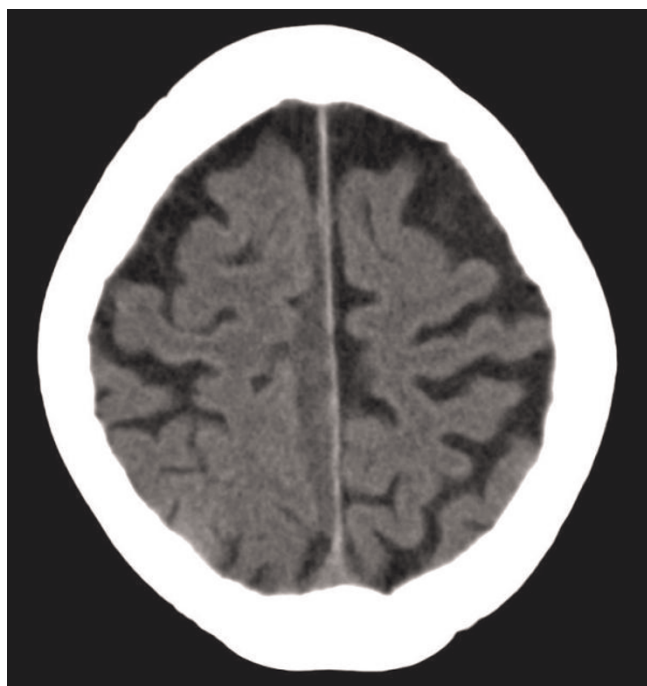


Figure 2. Computed tomography of the brain two weeks later shows a hypodense lesion representing an interhemispheric subdural hematoma of older age.

Discussion

ISH are uncommon lesions and are usually seen after trauma or in patients with bleeding disorders (e.g., use of anticoagulants) [1]. Clinical presentation of patients with ISH can vary extensively which can make diagnosis difficult, especially in the absence of risk factors [3]. In this case, ataxia of both legs was the only abnormality revealed by neurologic examination. Due to the physical representation of the primary motor cortex, clinical symptoms in interhemispheric hematomas often predominantly involve the lower limbs, which can primarily manifest itself in ataxia. Depending on the severity of symptoms (e.g., level of consciousness and severity of neurological abnormalities) treatment has to be decided between conservative management or surgical intervention [4]. Whereas conservative treatment may be followed in those who are neurologically stable, surgical intervention is often reserved for patients with pronounced symptoms or neurological deficits [1]. The overall mortality rate of ISH ranges from 24-27%, independently of choice of treatment, but may increase up to 32% in patients with long-term altered levels of consciousness [3,5].

Conclusion

Although ISH are uncommon, symptoms can be severe and clinical course can be devastating. Therefore, it is important that clinicians are aware of this condition, especially in patients with bleeding disorders (e.g., use of anticoagulants) or after head trauma.

Abbreviation

ISH, interhemispheric subdural hematomas.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

JS and MW were involved in the treatment of the patient and wrote and finalized the manuscript. All authors read and approved the final manuscript.

References

- Shankar A, Joseph M, Chandy MJ: **Interhemispheric subdural hematoma: an uncommon sequel of trauma.** *Neurol India* 2003, **51**:63-64.
- Sadrolhefazi A, Bloomfield SM: **Interhemispheric and bilateral chronic subdural hematoma.** *Neurosurg Clin N Am* 2000, **11**:455-463.

3. Bartels RH, Verhagen WI, Prick MJ, Dalman JE: **Interhemispheric subdural hematoma in adults: case reports and a review of the literature.** *Neurosurgery* 1995, **36**:1210-1214.
4. Furui T, Iwata K, Usui K: **Interhemispheric subdural haematoma complicated by intracerebral haematoma: case report.** *Acta Neurochir (Wien)* 1988, **91**:139-141.
5. Borzone M, Altomonte M, Baldini M: **Typical interhemispheric subdural haematomas and falx syndrome: four cases and a review of the literature.** *Zentralbl Neurochir* 1995, **56**:51-60.

Do you have a case to share?

Submit your case report today

- Rapid peer review
- Fast publication
- PubMed indexing
- Inclusion in Cases Database

Any patient, any case, can teach us something



**CASES
NETWORK**

www.casesnetwork.com