Unusual association of diseases/symptoms

An unusual presentation of cortical venous thrombosis and its association with typical antipsychotics

Sreeman Narayan Andole^{1,2}¹Department of Neurosciences, Barking Havering and Redbridge University Hospitals NHS Trust, Romford, UK;²Department of General Medicine and Geriatrics, Chelsea and Westminster Hospital, London, UK**Correspondence to** Dr Sreeman Narayan Andole, sreeman@doctors.org.uk**Summary**

A 41-year-old patient with schizophrenia was admitted to hospital following episodes of unexplained collapse attacks and on and off episodes of frontal headaches for 3 months. After three such episodes of loss of consciousness in 2 weeks duration and subsequent spontaneous recovery, his evaluation which included MRI scan of head revealed extensive cortical venous thrombosis. He was on zuclopenthixol (thioxanthene group) for several months for schizophrenia and was under regular psychiatric evaluation. He was treated for simple lower respiratory infection a week prior to admission. Other causes for any clotting disorders including vasculitic and thrombophilic screen were negative. There was no evidence of focal neurology on examination. Systemic examination was otherwise unremarkable. He was treated initially with unfractionated heparin and subsequently changed to warfarin with target international normalised ratio between two and three for at least 6 months and psychiatrist was advised to stop zuclopenthixol.

BACKGROUND

Both atypical and typical antipsychotics are now a recognised cause of cortical venous thrombosis. As symptoms can be very subtle and variable, a high index of suspicion is necessary to diagnose this condition and this case is an important reminder.

CASE PRESENTATION

A 41-year-old man was admitted following recurrent attacks of loss of consciousness and frontal headache of 3 months duration. All of the episodes were witnessed and lead to spontaneous and complete recovery within few minutes. The patient had similar event while he was under investigation in the hospital.

Physical examination, cardiovascular and other systemic examinations were normal, in particular there was no evidence of tonic clonic activity and focal neurology. He had medical history of schizophrenia and was on zuclopenthixol on weekly basis and other medications include orphenadine regularly. He lived on his own and was unemployed. He was an occasional smoker and did not consume regular alcohol. A week prior to admission, he was diagnosed with lower respiratory tract infection and was treated with amoxicillin with good effect.

INVESTIGATIONS

MRI brain showed on the T1 weighted sagittal sequence that there is high signal within the straight sinus and the superior sagittal sinus, this correlates to loss of signal void within the superior sagittal sinus on T2 weighted axial sequence (figure 1). The findings are consistent with venous sinus thrombosis within the superior sagittal sinus, the straight sinus and the right transverse sinus, extending down to the right internal jugular vein.

Figure 1 (A) and (B) MRI head. On the T1 weighted sagittal sequence there is high signal within the straight sinus and the superior sagittal sinus, this correlates to loss of signal void within the superior sagittal sinus on T2 weighted axial sequence.

TREATMENT

The patient was commenced on unfractionated heparin for 48 h and then switched to warfarin with target international normalised ratio between two and three.

OUTCOME AND FOLLOW-UP

The patient continues to be on warfarin with no side effects and there was no evidence of progressive neurology or recurrence of symptoms. We have decided to continue with anticoagulation for 6 to 9 months.

DISCUSSION

To diagnose cortical venous thrombosis requires high index of suspicion because of the variable nature of presentation.^{1 2} Venous thromboembolism is a well-recognised complication of antipsychotic medication, both typical and atypical.³ Although the mechanism for the cause is largely unknown, it is useful for clinician to be aware of this potential diagnosis and its prognosis.⁴ Other associations such as obesity, duration of the treatment, clotting abnormalities are all relevant.⁵ The aetiology helps in the treatment and in the prevention of recurrence. Anticoagulation and thrombolysis are the main arms of treatment but unfortunately no overwhelming consensus.⁶

Learning points

- ▶ Drugs such as antipsychotics are an important cause of cortical venous sinus thrombosis.
- ▶ Atypical and different modes of presentation are common and hence high threshold for early diagnosis with suitable imaging is important.
- ▶ Anticoagulation is now a recognised modality of treatment and re imaging can be done to confirm the resolution of thrombus.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. **Ben Sassi S**, Mizouni H, Nabli F, *et al*. Cerebral venous thrombosis presenting with cerebellar ataxia and cortical blindness. *J Stroke Cerebrovasc Dis* 2010;**19**:507–9.
2. **Ameri A**, Bousser MG. Cerebral venous thrombosis. *Neural Clin* 1992;**10**:87–111.
3. **Knudson JF**, Kortepeter C, Dubitsky GM, *et al*. Antipsychotic drugs and venous thromboembolism. *Lancet* 2000;**356**:252–3.
4. **Pfefferkorn T**, Crassard I, Linn J, *et al*. Clinical features, course and outcome in deep cerebral venous system thrombosis: an analysis of 32 cases. *J Neurol* 2009;**256**:1839–45.
5. **Alonso-Cánovas A**, Masjuan J, González-Valcárcel J, *et al*. [Cerebral venous thrombosis: when etiology makes the difference]. *Neurologia* 2009;**24**:439–45.
6. **Benamer HT**, Bone I. Cerebral venous thrombosis: anticoagulants or thrombolytic therapy? *J Neurol Neurosurg Psychiatr* 2000;**69**:427–30.

This pdf has been created automatically from the final edited text and images.

Copyright 2011 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Andole SN. An unusual presentation of cortical venous thrombosis and its association with typical antipsychotics. *BMJ Case Reports* 2011;10.1136/bcr.07.2011.4542, date of publication

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow