

CEREBRAL VENOUS SINUS THROMBOSIS AFTER PROLONGED USE OF
NORETHISTERONE ACETATE: A CASE SERIES

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Background

Cerebral venous sinus thrombosis (CVST) is a type of stroke where thrombosis occurs in the cerebral venous sinuses or veins. While rare, it mostly affects women of reproductive age and individuals with a prothrombotic state. The clinical presentation is diverse, therefore requiring a high level of suspicion.

Aim

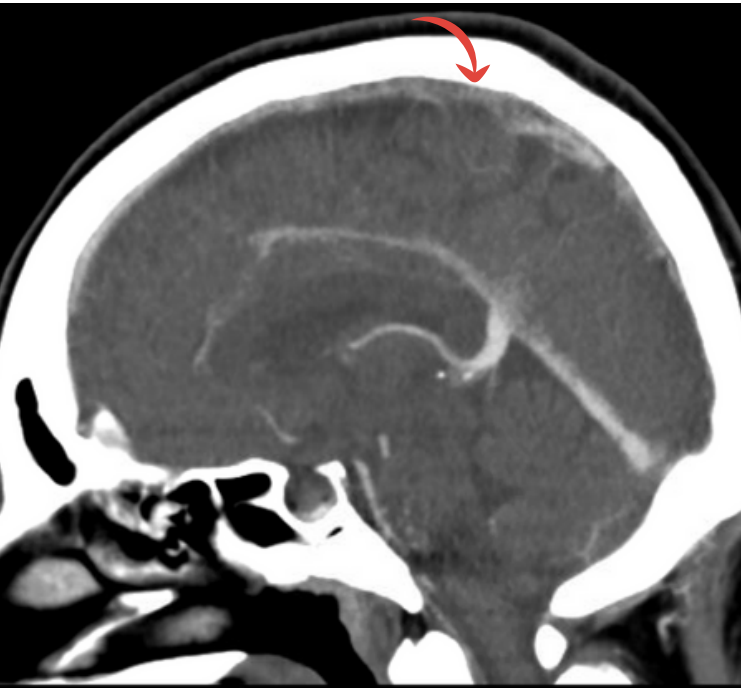
To present a case series of two women diagnosed with CVST after prolonged use of norethisterone acetate for abnormal uterine bleeding (AUB).

Case Description

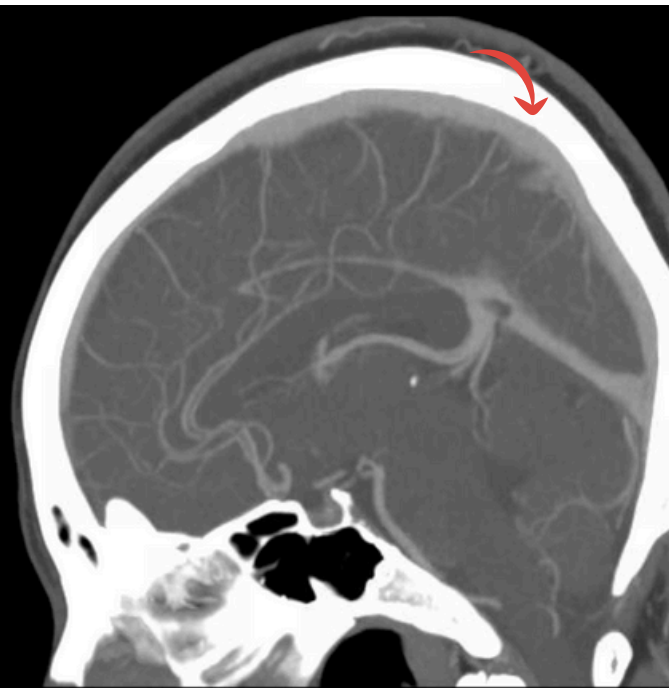
Our gynaecology team consulted two women in their 40’s for AUB causing severe iron deficiency anaemia, who were inpatients for unrelated medical conditions. Both were commenced on norethisterone either by their general practitioner or by our team and advised to have a pelvic ultrasound. One patient was diagnosed with a multi-fibroid uterus and underwent uterine artery embolization. The other was found to have a single fibroid of unclear FIGO classification due to poor imaging quality, hence further work-up was organized. However, she did not comply and did not attend follow-up. Both patients presented to the emergency department a few months later with acute symptoms: the first with left-sided headache and the latter with a seizure. They were subsequently found to have a CVST on CT venogram, which was diagnosed by the haematology team as provoked by hormone therapy.

Discussion

CVST is rare, with an estimated annual incidence of three to four cases per one million adults (75% of those affected are females).¹ Because symptoms of CVST are variable and non-specific, diagnosis is often delayed by a median period of 7days from the onset of clinical manifestations. The International Study on Cerebral Venous and Dural Sinus Thrombosis (ISCVT), which included 624 patients, described the following as the most common presenting symptoms: headache (88.8%), seizures (39.3%), paresis (37.2%), papilledema (28.3%) and mental status changes (22%). ² Current guidelines recommend treatment with anticoagulation for at least 3 months or for an extended duration in the presence of persistent provoking factors.³



Patient A



Patient B

CT Venogram showing similar features: Dural venous sinus thrombosis, predominantly involving the superior sagittal sinus (red arrows)

Conclusion

The association between progestin for treatment of menstrual disorders and central venous sinus thrombosis (CVST) has rarely been reported in the literature. This is mainly because venous thrombosis is usually linked to the use of estrogen, rather than progestogen. Therefore, this case series is a gateway for larger-scale studies looking into a potential link between norethisterone use and the risk of CVST.

References

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