



# A Curious Case of Seizure

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## Case Background

**HPI:** The patient is a 61 year old woman transferred to OHSU after a witnessed seizure and left sided weakness three weeks after an uncomplicated AAA endovascular repair.

**PMH:** AAA s/p endovascular repair, HTN, HLD, tobacco use disorder

**Social history:** Current smoker, 48 pack year history, no EtOH, no drugs

**Medications:** Albuterol, atorvastatin, bupropion, diltiazem, lisinopril/HCTZ, metoprolol tartrate

**Vitals:** Afebrile, BP 121/54, HR 55, RR 16, SpO2 96%

**Physical Exam:** NIH stroke scale 7 (left arm: 4, left leg: 3)

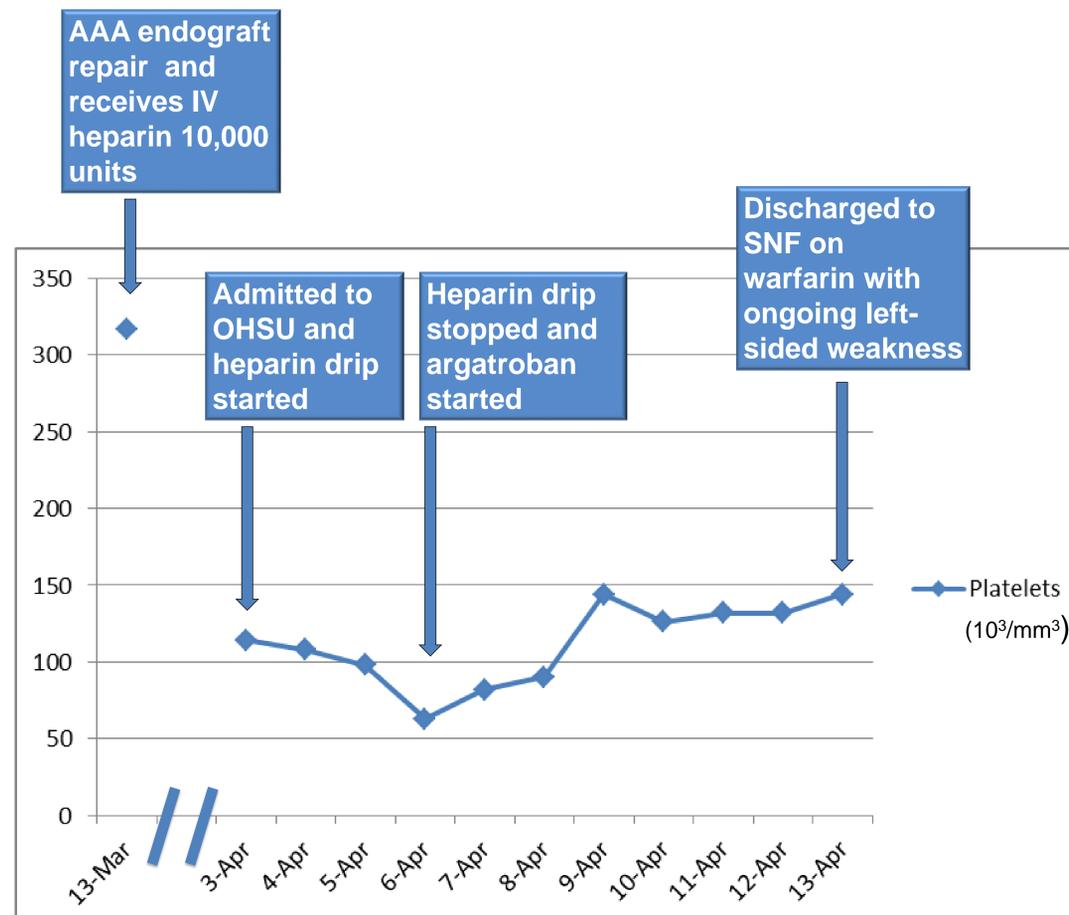
**Labs:** Platelets: 114,000 /mm<sup>3</sup>

**Imaging:** CT and cerebral angiogram revealed a right frontal lobe intraparenchymal hematoma with hyperdense vessels and a partially occlusive thrombus in the superior sagittal sinus.

## Hospital Course

A heparin drip was started on admission for superior sagittal sinus thrombosis. On hospital day 3 she had a continued drop in her platelet count (nadir 63) raising concern for HIT (HIT score 7). The heparin drip was stopped, an argatroban drip was started and HIT testing was sent which revealed a positive platelet factor 4 with a positive confirmatory serotonin release assay. Other hypercoagulable workup was negative.

## Platelet Trend



Cerebral angiogram

## Discussion

Thrombocytopenia is **common among inpatients** and has a broad differential. Heparin-induced thrombocytopenia (HIT) is a **rare but potentially life-threatening cause of thrombocytopenia**. It is important to remember that thrombosis, either **arterial or venous, can be the presenting feature in 25% of patients** with HIT (1). In a small subset of cases, this entity **can present with cerebral venous thrombosis (CVT)** manifesting as acute neurologic changes. **In more than 85% of adult patients, at least one risk factor for CVT can be identified** with the most common factors including an inherited or acquired pro-thrombotic condition, malignancy, oral contraceptive use or infection (2).

## Teaching Points

1. Any patient with suspected HIT should have immediate discontinuation of all heparin products and be transitioned to a non-heparin anti-coagulant.
2. The diagnosis of CVT should prompt investigation of risk factors for pro-thrombotic conditions based on specific patient characteristics.

## References

1. Linkins LA, et al. Treatment and prevention of heparin-induced thrombocytopenia: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. College of Chest Physicians. Chest. 2012;141(2 Suppl):e495S.
2. Ferro JM, et al. Prognosis of cerebral vein and dural sinus thrombosis: results of the International Study on Cerebral Vein and Dural Sinus Thrombosis (ISCVT). Stroke 2004; 35:664.