

Spontaneous Cervical Epidural Hematoma in a Patient on Anticoagulant Therapy – Therapeutic Approach

B. Shutinoski, E. Milanovska, E. Joveva

Spontaneous cervical epidural hematoma is an uncommon cause of acute spinal cord compression. This is a rare (estimated incidence of about 0.1%) idiopathic condition that should be considered in non-traumatic patients with acute onset of neurological deficits, which if not recognized early can have catastrophic consequences.

Case report:

The patient is a 68-year-old male with a history of hypertension (HTN), atrial fibrillation (AFib), and previous interventional cardiology procedures (PTCA with stent placement on RCA m+p and LMN-LAD-DG1 performed one year prior).

On August 16, 2024, the patient was urgently transported by Emergency Medical Services (EMS) with acute quadriplegia, more pronounced on the right side, accompanied by right-sided Horner's syndrome, bilaterally positive Babinski reflexes, severe headache, and arterial hypertension (BP 230/110 mmHg). The patient underwent a comprehensive neurological and neurosurgical evaluation, leading to the diagnosis of an epidural hematoma at the C3/C4 level and paraplegia. On initial examination, the patient was alert, conscious, communicative, and oriented, with a Glasgow Coma Scale (GCS) score of 15.

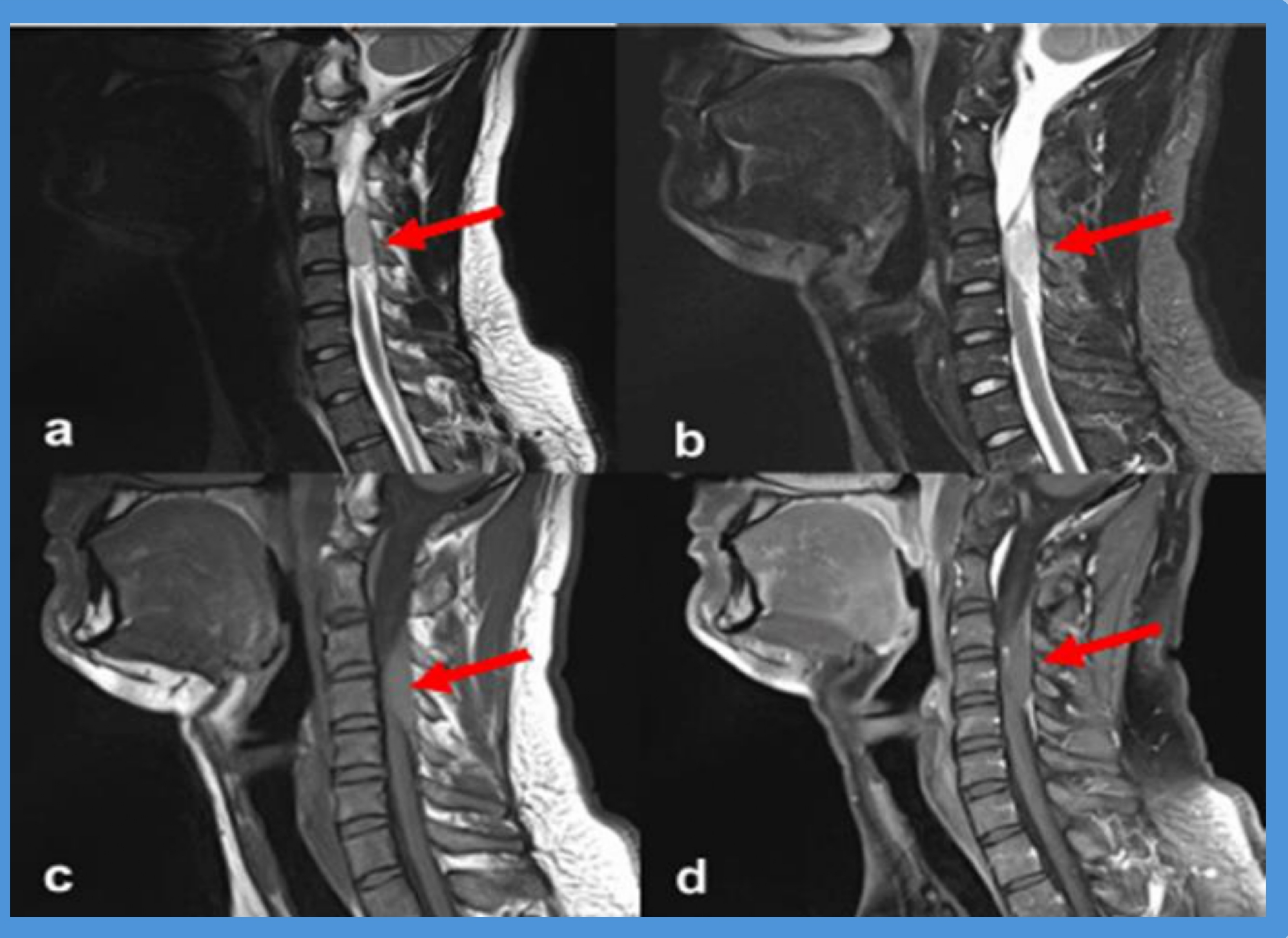
During hospitalization, several diagnostic investigations were conducted, including:

- Laboratory analyses: Elevated D-dimer levels (4200 ng/mL).
- Cardiology consult: Electrocardiography (ECG) revealed atrial fibrillation (AFib) without signs of acute myocardial ischemia.
- Initial brain CT scan: Revealed an old lacunar hypodensity in the right periventricular area. No fresh parenchymal lesions, hemorrhages, or mass effects were observed.

-Cervical spine CT scan : Demonstrated an epidural hematoma at the C3/C4 level, occupying 60% of the spinal canal, more prominent on the left side, with moderate compression of the medullary sac. Degenerative changes were observed at multiple cervical spine levels.



-Cervical spine MRI: Showed a hyperintense lesion in the epidural space at the C3/C4 level, consistent with an epidural hematoma.



During the hospital stay, the patient's condition remained stable. A follow-up cervical spine CT scan showed significant regression of the hematoma, with no notable compression of the spinal cord.

Prescribed therapy included:

- Anticoagulant therapy: Clexane 0.3 mL twice daily for one month.
- Neuroprotective therapy: NurAid 3x2 for two months.
- Antihypertensive and supportive therapy: Prenesa, Masido, and Vitamin C.

The patient was discharged with recommendations for regular cardiology and neurosurgical follow-up, continuation of prescribed therapy, and rehabilitation.

Discussion: Cervical epidural hematoma as a complication of anticoagulant therapy is a rare clinical finding. In this case, the regression of the hematoma and stabilization of the patient's condition indicate successful management.

Role of NurAid: NurAid is a preparation containing a combination of essential phospholipids and neuroprotective substances designed to support the regeneration and function of nerve cells. Although NurAid does not have a direct therapeutic effect on epidural hematomas and does not influence coagulation status, its role is supportive, particularly in facilitating neurological recovery processes.

Results: Although the neuroprotective supplement (NurAid) doesn't have a direct therapeutic effect on epidural hematomas and does not influence coagulation status, its role is supportive, particularly in facilitating neurological recovery process.

Conclusion: In patients on anticoagulant therapy, acute epidural hematoma may occur because of prolonged use of anticoagulants. The neuroprotective therapy (with NurAid) has a significant role with faster and easier neurological recovery.