

Clinical Image

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Non-traumatic subdural hematoma in a patient on maintenance hemodialysis

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Description

Patients on maintenance HD have a 10-fold higher risk of developing Subdural Hematoma (SDH) than the general population [1,2]. However, non-traumatic SDH is a rare condition resulting to poor prognosis and high mortality [2,3]. We present the case of a 64-year-old man with a 10-year history of essential hypertension and type 2 diabetes. He has been under maintenance HD for two years, following an ESRD. During HD session he suddenly presented with severe headache, altered level of consciousness and left sided weakness. No prior history of fever or trauma reported. His HD regimens consisted of 4-hours session, 3 times per week via a native left arm arteriovenous fistula. During the HD session, 5000 international units of intravenous unfractionated heparin were administered as anticoagulation. His average intradialytic gain in weight was 4.5 kg. His current drug regimen included amlodipine 10 mg once daily, carvedilol 12.5 mg twice daily, hydralazine 50 mg thrice daily, clopidogrel 75 mg once daily, atorvastatin 40 mg once daily, isosorbide di-

nitrate 20 mg twice daily, and pioglitazone 15 mg once daily. Both underlying medical conditions were controlled. Examination findings consisted of a blood pressure of 134/89 mmHg, a regular heart rate of 86 beats per minute, and a score of 3 on the Full Outline of Unresponsiveness (FOUR) scale (pupil and corneal reflexes were absent, extensor response to pain, and eyelids were closed but open to pain). There was no evidence of ecchymosis, petechial hemorrhages, or purpura. Laboratory investigation results demonstrated white blood counts of $4.3 \times 10^9/L$, mild normocytic hypochromic anemia of 11.8 g/dl, platelet counts of $162 \times 10^9/L$. Both activated partial prothrombin time and prothrombin time were within the normal limits at 30 and 11 seconds respectively. An emergent computed tomography scan showed features suggestive of acute-on-chronic hematomas (Figure 1). Three hours after being admitted to the intensive care unit, he was pronounced dead without any surgical intervention.

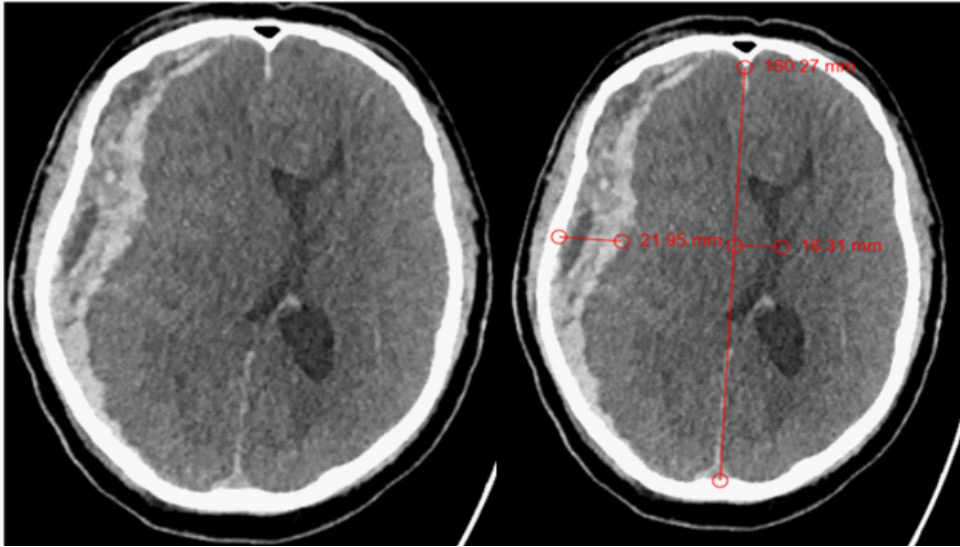


Figure 1: Axial view of non-contrasted enhanced CT scan showing a large, crescent-shaped extra-axial collection seen along the right cerebral convexity, demonstrating a mixed density pattern with areas of both hyperdensity and hypodensity. The collection measures approximately 21 mm in maximal thickness. There is effacement of the right cortical sulci, indicating significant mass effect on the adjacent brain parenchyma. Partial effacement of the right lateral ventricle noted, with compression of the frontal horn and body of the lateral ventricle. There is a leftward midline shift measuring approximately 16 mm, with displacement of the septum pellucidum.

References

1. Wang IK, Lin CL, Wu YY, Kuo HL, Lin SY, et al. Subdural hematoma in patients with end-stage renal disease receiving hemodialysis. *Eur J Neurol.* 2014; 21(6): 894-900.
2. Yang L, Li Z, Dai X, Wang L, Wang X, et al. Nontraumatic subdural hematoma in patients on hemodialysis with end-stage kidney disease: a systematic review and pooled analysis. *Front Neurol.* 2023; 14(9): 1-7.
3. Fayed A, Tarek A, Refaat MI, Abouzeid S, Salim SA, et al. Retrospective analysis of nontraumatic subdural hematoma incidence and outcomes in Egyptian patients with end-stage renal disease on hemodialysis. *Ren Fail [Internet].* 2021; 43(1): 1322-8. Available from: <https://doi.org/10.1080/0886022X.2021.1979038>.