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Chronic Epidural Hematoma in an Elderly Patient: A Rare Encounter!!

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Epidural hematoma (EDH) may sometimes result in life-threatening complications. Small-volume EDH can resolve spontaneously like other intracranial hematomas; however, rarely instead of disappearing, it may persist forming chronic EDH.[1,2] An 85-year-old female patient was brought to our hospital with complaints of weakness in the right upper and lower limbs and delirium. There was a history of fall on a flat surface at her residence 24 days back, with no loss of consciousness or weakness at that time. A noncontrast computed tomography scan of the head revealed a chronic EDH (►**Fig. 1**). She was taken up for an emergency burr hole and evacuation of the EDH. The intraoperative and postoperative course was uneventful, and the patient was discharged with recovering hemiparesis on the 4th postoperative day. We obtained consent from the patient's relative for this report.

Chronic EDH accounts for only 4% of all EDH cases and the rarity of this condition is the possible reason for underestimating its importance. In a patient with EDH, an unusually long interval between trauma and onset of symptoms suggests a delayed expansion of a chronic EDH. This should be kept in mind when planning conservative management of EDH.[3] Often chronic EDH is defined as a hematoma observed from 48 hours to 13 days after the incident of trauma or surgery.[2,4,5] The source of hemorrhage is venous in chronic EDH as opposed to an arterial source in acute EDH. They thus spread slowly and are more likely to enter the chronic stage.[2] The suggested processes leading to the development of chronic EDH include the formation of a membrane and liquefaction of the solid clot. Neovascular proliferation in the membrane with increased permeability as well as the hyperfibrinolytic activity of the hematoma are important factors in hematoma development. A dense fibrous capsule forms in response to the products of erythrocyte breakdown. This membrane may be observed as a bright enhanced rim surrounding the hematoma and may sometimes be confused with a brain abscess.[1,3] During its transformation from acute to chronic form, the hematoma expands and may manifest with certain neurological features. This might be the reason for hemiparesis in our patient.

Fig. 1 Figure showing chronic epidural hematoma (highlighted with blue arrow).

Unlike a small acute EDH, which may resolve on its own, the internal contents of the hematoma cavity may range from solid clots (that require craniotomy for evacuation) to liquefied blood (requiring burr hole evacuation). Unlike subdural hematoma (SDH), there is no agreed-upon definition or an established interval between the injury and the clinical manifestation. In contrast to chronic SDH which may be

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managed conservatively, chronic EDH almost always requires surgical evacuation. A burr hole craniotomy with evacuation of blood is usually the surgery performed for chronic SDH evacuation, while in some cases craniotomy with hematoma evacuation may be necessary for complete evacuation of chronic EDH.[2,6]

Our case highlights the fact that an acute EDH can transform into a chronic form leading to a delayed neurologic deficit later on. This should be kept in mind when planning conservative management of EDH.

Conflict of Interest
None declared.

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