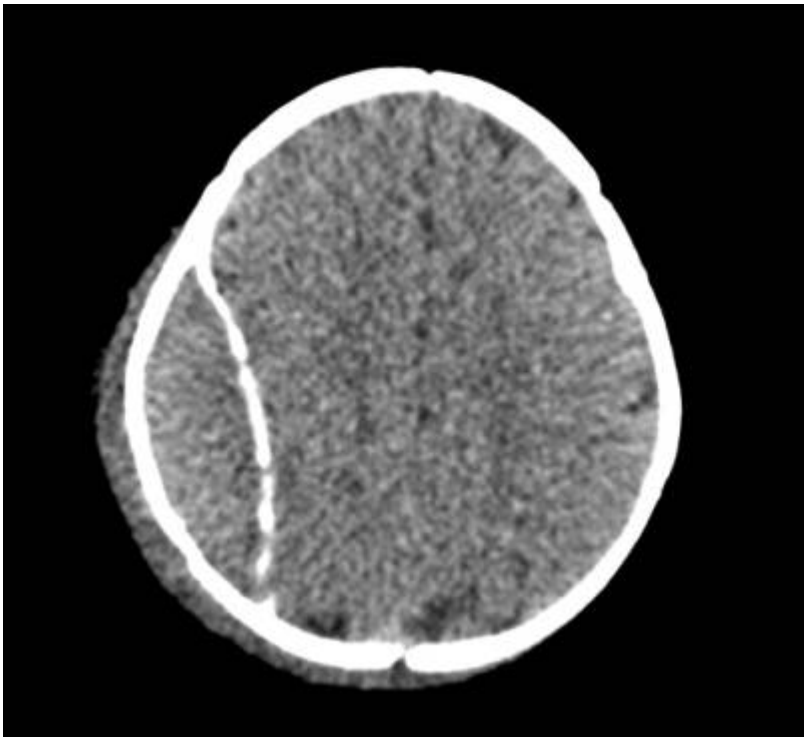
# Chronic epidural hematoma



Sparacio et al [1] used the term CEDH for those extradural hematomas operated > 48 hours after injury and Clavel et al [2] defined CEDH as EDH which are diagnosed 72 hours after injury. Bullock and van Dellen [3] used the term CEDH as the EDH with injury to surgery interval of at least 7 days. Iwakuma and Brunngraber, [4] however, adopted anatomopathological criterion defining CEDH as those EDH operated more than 13 days after injury and was similar to that of Zuccarello et al. [5]. Bradley [6] defined CEDH based on hemoglobin breakdown products on magnetic resonance imaging as extradural hematomas identified more than 14 days after head injury. This definition seems to be more scientific, recent, and evidence-based.

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In the post-computed tomography (CT) era it is always said that CEDH is a rare entity. However, in developing countries like India we still encounter a large number of such cases and the question arises whether CEDH is still a rare entity? [7].

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One hundred fifteen (115) patients with extradural hematomas underwent a standard evaluation, documentation and neurosurgical management (prompt evacuation of all extradural hematomas through a craniotomy). Ninety-five patients (83%) had an acute extradural hematoma. Twenty patients (17%) had a chronic extradural hematoma. We analyzed the following parameters: age, cause of accident, clinical findings, Glasgow Coma Score, morphology of hematoma, location of hematoma, cause of bleeding and clinical outcome. The mean age (chronic 30/acute 32) and age distribution were not significantly different between groups. There were no differences in the cause of accident. All patients in both groups had skull fractures. There was no difference between groups regarding hematoma location, most of there being located in the temporal fossa. In the group of acute extradural hematomas, 62% of patients had a Glasgow Coma Score of less than 8 and 47% had

pupillary dilation. In the group of chronic extradural hematomas, moderate clinical symptoms were found, with headache and discrete psychological changes most common. Eighty percent (80%) of the patients had a Glasgow Coma Score of greater than 13 and no patients had pupillary dilation [8].

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Epidural hematomas generally become manifested within hours after trauma because of progressive obtundation and later transtentorial herniation. However, epidural hematomas located outside the temporal fossa may produce vague neurological symptoms of delayed onset. Emergency operation may not adequately expose those blood clots located in unexpected positions. Computed tomographic (CT) brain scans will reveal the full extent and location of these hematomas. Seven cases of chronic epidural hematoma in various extratemporal locations are reported to emphasize their misleading clinical courses, their demonstration by CT scanning, and the underlying pathophysiology [9].

1)
Sparacio RR, Khatib R, Chiu J, Cook AW. Chronic epidural hematoma. J Trauma 1972;12(5):435–439
2)
Clavel M, Onzain I, Gutierrez F. Chronic epidural haematomas. Acta Neurochir (Wien) 1982;66(1-2):71–81
3)
Bullock R, van Dellen JR. Chronic extradural hematoma. Surg Neurol 1982;18(4):300–302
4)
Iwakuma T, Brunngraber CV. Chronic extradural hematomas. A study of 21 cases. J Neurosurg 1973;38(4):488–493
5)
Zuccarello M, Fiore DL, Pardatscher K, Trincia G, Andrioli GC. Chronic extradural haematomas. Acta Neurochir (Wien) 1983;67(1-2):57–66
6)
Bradley WG Jr. Hemorrhage and hemorrhagic infections in the brain. Neuroimaging Clin N Am 1994;4(4):707–732
7)
https://www.thieme-connect.com/products/ejournals/pdf/10.1055/s-0041-1727555.pdf
8)
Käch K, Imhof HG, Künzi W, Trentz O. Unterschiede der akuten und chronischen Epiduralhämatome [Differences of acute and chronic epidural hematoma]. Unfallchirurg. 1992 Sep;95(9):426-30. German. PMID: 1411608.
9)
Hirsh LF. Chronic epidural hematomas. Neurosurgery. 1980 May;6(5):508-12. doi: 10.1227/00006123-198005000-00002. PMID: 7413034.