

Supra- and Infratentorial Acute Epidural Haematoma: A Case Report

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✓ Epidural hematoma is seen in 1 to 9 % of all head injuries, and usually occurs unilaterally. Bilateral Epidural hematoma is an uncommon condition and consists of 2-10 % of all acute Epidural hematomas in adults. Acute supra- and infratentorial epidural haematoma is infrequent lesion and only a few articles were published in the literature. The presence of infratentorial haematoma which leads to sudden death and quick deterioration and complication is more significant than supra tentorial that can mask the features of infratentorial Epidural hematoma. We encountered with such a case in which a 35 years male was referred to our hospital after a traffic accident in an unconscious condition and operated successfully. This case is being presented with a brief review of literature.

Key words: Epidural haematoma, head injury, supratentorial, infratentorial

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Supra- ve İnfratentoryal Akut Epidural Hematom

✓ Akut supra ve infratentoryal epidural hematom (EDH) tüm kafa travmalarının % 1 ila % 9'unu oluşturur ve genellikle tek taraflı görülür. Bilateral EDH nadiren görülür ve tüm erişkin EDH'ların % 2 ila % 10'unu oluşturur. Akut supra ve infratentoryal EDH literatürde sadece birkaç olgu ile sınırlıdır. Akut infratentoryal EDH ani ölüme sebep olabilir ve akut supratentoryal EDH, daha ciddi komplikasyonlara sebep olabilen infratentoryal EDH u maskeleyebilir. Bu olgu sunumunda trafik kazası sonrası şuur kaybı ile hastanemize başvuran 35 yaşında bir erkek hasta, kısa bir literatür özeti eşliğinde sunulmuştur.

Anahtar kelimeler: Epidural hematom, kafa travması, supratentoryal, infratentoryal

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Epidural hematomas are one of the most common complications of closed head injuries, but traumatic acute epidural hematomas in posterior fossa are rare.

Similarly, they are rarely seen on both sides of tentorium at the same time. In most cases, traffic accidents and falls are the major causes of head injuries and patients with such symptoms appear as the classical clinical findings of epidural haematoma. There may be no symptom in acute epidural hematomas of posterior fossa initially. Clinical symptoms contributed little to identify-

ing the site of the hematoma, and the diagnosis after the onset of medullary complications is usually too late for effective treatment, and outcome is usually death. CT and MRI are used for early diagnosis. Early detection of the lesion is critical. Since the advent CT scanning, the diagnosis of this lesion has been simplified and the prognosis of patients has improved ^(1,2). In the literature, there is only one case published and also one other case of chronic supra- and infratentorial epidural hematoma ⁽⁴⁾. The purpose of this paper is to present a case of supra- and infratentorial acute epidural haematoma.

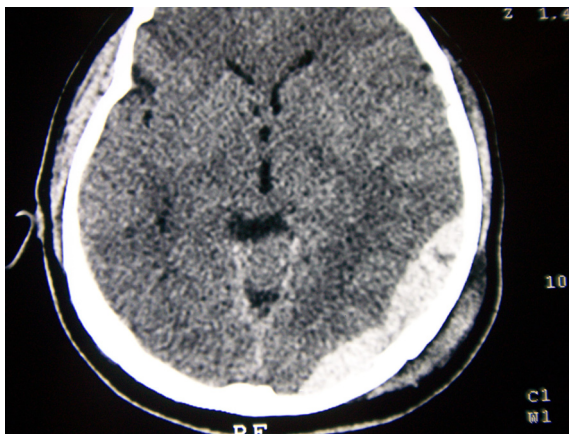
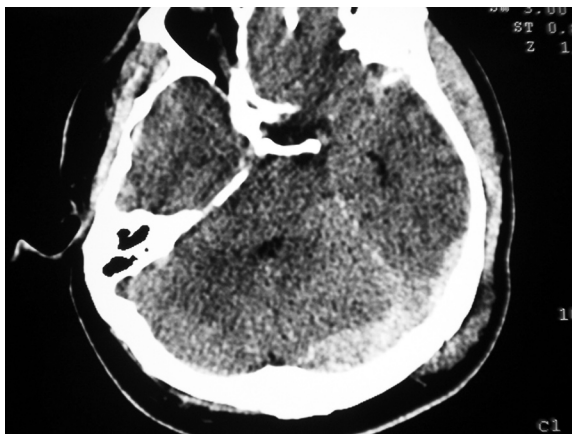


Figure 1 and 2. Infra- and supra tentorial acute epidural hematoma.



Figure 3. Linear fracture line on occipital bone.

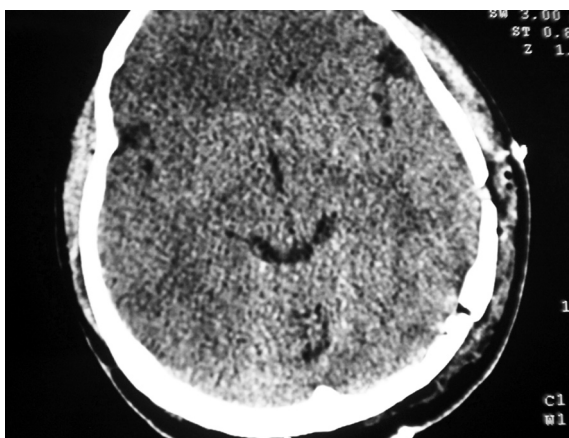


Figure 4 and 5. Postoperative CT showing no residual supra- or infra tentorial hematomas.

CASE REPORT

A 35-year-old male was referred to our hospital with traffic accident in unconscious condition. CT examination showed presence of infra- and supra tentorial acute epidural hematoma (Figure 1 and 2) and a linear fracture line on occipital bone (Figure 3). During the operation, it was seen that the haematoma was originated from the left transverse sinus tear and the sinus was

lifted by haematoma from the bony cranium. The haematoma in posterior fossa was evacuated immediately. The lifted sinus eased the approach to the supratentorial compartment and the supratentorial EDH was also removed in same sitting. After these interventions, the patient

showed an increasing recovery without any neurological deficits in the postoperative period and he was discharged on the fifth postoperative day. In postoperative CT, there was no residual supra- or infra tentorial hematomas (Figure 4 and 5).

DISCUSSION

EDH is seen in 1 to 9 % of all head injuries ⁽¹⁾, and usually occurs unilaterally. Bilateral EDH is an uncommon condition and consists of 2-10 % of all acute EDH in adults ⁽³⁾. A simultaneous acute supra and infratentorial epidural haematoma is a rare case which appears both in front of lateral sinus and behind it and in general, such cases are seen if lateral sinus injury is observed. One of the most significant criteria is the presence of fracture line that crosses the lateral sinus. The classical sign of detachment of torcula is seen only in about 25 % of cases. An early diagnosis is mandatory for good recovery, and some authors have suggested that CT scanning should be conducted in all patients with occipital soft tissue swelling and fracture of underlying occipital bone ⁽⁵⁾. The fractured skull could also be a source of bleeding. 24 % percent of patients didn't show fractures on skull X-rays. Detachment of the venous sinus is another possible cause of bleeding, as no fracture and no tearing of the sinus were found even at autopsy in some cases ⁽⁶⁾. In general, while the overall mortality rate is also high at 17 %, the operative mortality rate is also high at 14 %. The morbidity rate has been 6 %, with 3 % of patients presenting severe disability. Morbidity and mortality has been shown to be affected by age with better prognosis in patients who are under 10 years of age ⁽⁷⁾. Old people are unlikely to manifest signs or symptoms of increased intracranial pressure due to cerebral atrophy and nearly all haematoma in them occurred in the parietal area. Among intracranial epidural haematoma, the incidence of posterior fossa epidural haematoma

can be initially symptom-free. Notwithstanding, deterioration can be rapid and life-threatening. Thus, CT ought to always be performed when an occipital trauma is diagnosed. Posterior fossa epidural haematoma is rather unusual and there is always a trauma history when it occurs. Fracture of occipital bone is obviously seen in most cases and then clinical symptoms become clear. Among most of the patients, surgery ending with recovery is generally performed. In addition to this, some patients can be followed conservatively, yet they should be routinely controlled to evaluate the progress of haematoma with following cranial CT scans.

The presence of infratentorial haematoma which leads to sudden death and quick deterioration and complication is more significant than supra tentorial that can mask the features of infratentorial EDH. As a result, the presence of infratentorial acute EDH should be strongly suspected in the presence of fracture line at the lateral or sigmoid sinus which is an indication for urgent CT evaluation of the posterior fossa. These patients should be closely observed for clinical manifestations and following CT scans should be applied.

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