Subgaleal hematoma

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Subgaleal hematoma is a type of cephalhematoma in the potential space between the periosteum and the galea aponeurosis.

They dont calcify.

Its occurrence beyond the neonatal period is rare and is often associated with head trauma involving tangential or radial forces applied to the scalp causing emissary veins traversing the subgaleal space to be ruptured [1)].

Epidemiology

In patients with traumatic intracranial hemorrhage or skull fractures, the incidence is increased.

In the newborn infant is rare, occurs early, and often bears serious consequences.

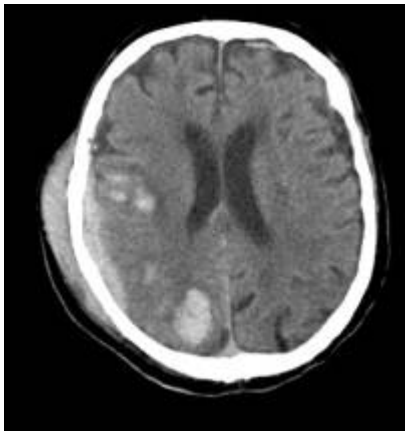
Etiology

Subgaleal hematoma etiology.

Diagnosis

The diagnosis is generally a clinical one, with a fluctuant boggy mass developing over the scalp

Laboratory studies consist of a hematocrit evaluation.

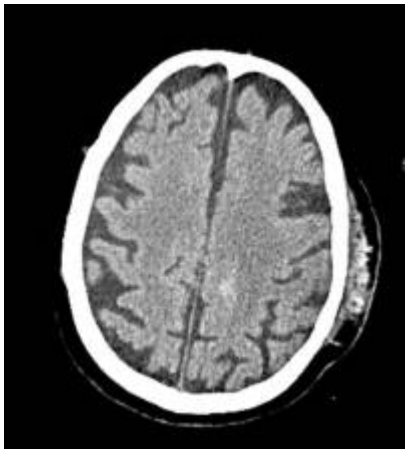


Right frontotemporoparietal intracranial acute epidural hematoma, up to 1 cm. thick, underlying a

broad line of right temporoparietal Right parietal subgaleal hematoma, up to 1cm. of thickness.

Hemorrhage under the scalp

Not to confuse with subperiosteal hematoma.



Small gyriform laminar hyperdensity is observed in the left superior frontal sulcus in relation to a small subarachnoid hemorrhage. Left parietal subgaleal hematoma up to 7 mm thick.

Differential diagnosis

Subgaleal hematoma differential diagnosis.

Epidural hematoma association

Although rare, rapid spontaneous resolution of epidural hematomas in the pediatric population has even been reported [2].

Numerous theories have been proposed to explain the pathophysiology behind these cases, including egress of epidural collections through cranial discontinuities (fractures/open sutures), blood that originates in the subgaleal space, and bleeding from the cranial diploic cavity after a skull fracture that preferentially expands into the subgaleal space [3]

Treatment

Children born by use of vacuum extractor or forceps require careful monitoring by the nursing staff throughout their stay in the maternity unit [4].

In most cases, conservative treatment is the preferred option because adhesion between the galea aponeurotica and the periosteum restricts the extent of the hematoma. In special cases, however, the hematoma enlarges extraordinarily past these adhesions, and the patients thus affected suffer from progressive anemia followed by the lethargy and headache resulting from the excessive distension of

the skin and the subcutaneous tissue. In such cases, hematoma removal is performed in order to relieve the symptoms [5].

The therapeutic strategy for massive subgaleal hematoma is individualized. However, treatment for massive subgaleal hematoma with skull fracture should not be considered the same as for hematoma without skull fracture. Emergent surgery is recommended before neurological deterioration is recognized in the patient if damage to the dural sinus is suspected [6].

Endoscopic techniques have been advanced along with the recent trend toward invasive neurosurgery. These minimally invasive techniques can allow sufficient removal of subgaleal hematoma with minimal morbidity, especially in patients such as ours. In addition, the utility of endoscopic techniques for the removal of subgaleal hematoma should be confirmed after long-term follow-up [7].

Complications

Usually starts as a small localized hematoma, and may become huge (with significant loss of circulating blood volume in age < 1 year, transfusion may be necessary).

A 3 kg baby was delivered by cesarean section after prolonged labor. He had massive subgaleal hematoma. He developed anemia requiring packed cell transfusions and hyperbilirubinemia requiring a total of seven exchange transfusions and highly intensive phototherapy. There were no adverse complications of the hyperbilirubinemia or the exchange transfusion [8].

Case reports

A 39-year-old healthy worker came to our emergency department (ED) due to scalp lacerations from an accident that caused severe twisting of his hair. He denied head contusion and was conscious upon arrival. Physical examination showed three lacerations over his right temporal area. The wounds depth extended to the skull, with a 10-cm subperiosteal pocket beneath the lacerations. Primary sutures were performed immediately under local anesthesia, not only for wound closure but also for hemostasis. However, he returned to our ED 3 h after the first visit for a newly developed soft lump over the left side of his forehead. Computed tomography scan of brain illustrated a huge and diffuse SGH in the left temporal region with extension to periorbital region. Although the option of incision and drainage was discussed with a neurosurgeon and a search for some case reports was done, most of the hematoma could be self-limited. Conservative management with non-elastic bandage packing direct compression was applied. The patient was then admitted for close observation and conservative treatment for 1 week. There was no recurrence of SGH in the following 3 months. WHY SHOULD AN EMERGENCY PHYSICIAN BE AWARE OF THIS?: SGH is an uncommon phenomenon that is caused by tearing of the emissary veins in the loose areolar tissue located beneath the galeal aponeurosis. Conservative treatment with bandage compression is recommended for SGH. Surgery is reserved for cases where non-invasive management fails or severe complications [9].

References

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