

Epidural haematoma



Digital Pathology Collection

Case 5 2009

Ref. XII:ii:1



- This is an example of a traumatic vascular injury in the central nervous system.
- Unfortunately there is no clinical data for the specimen.

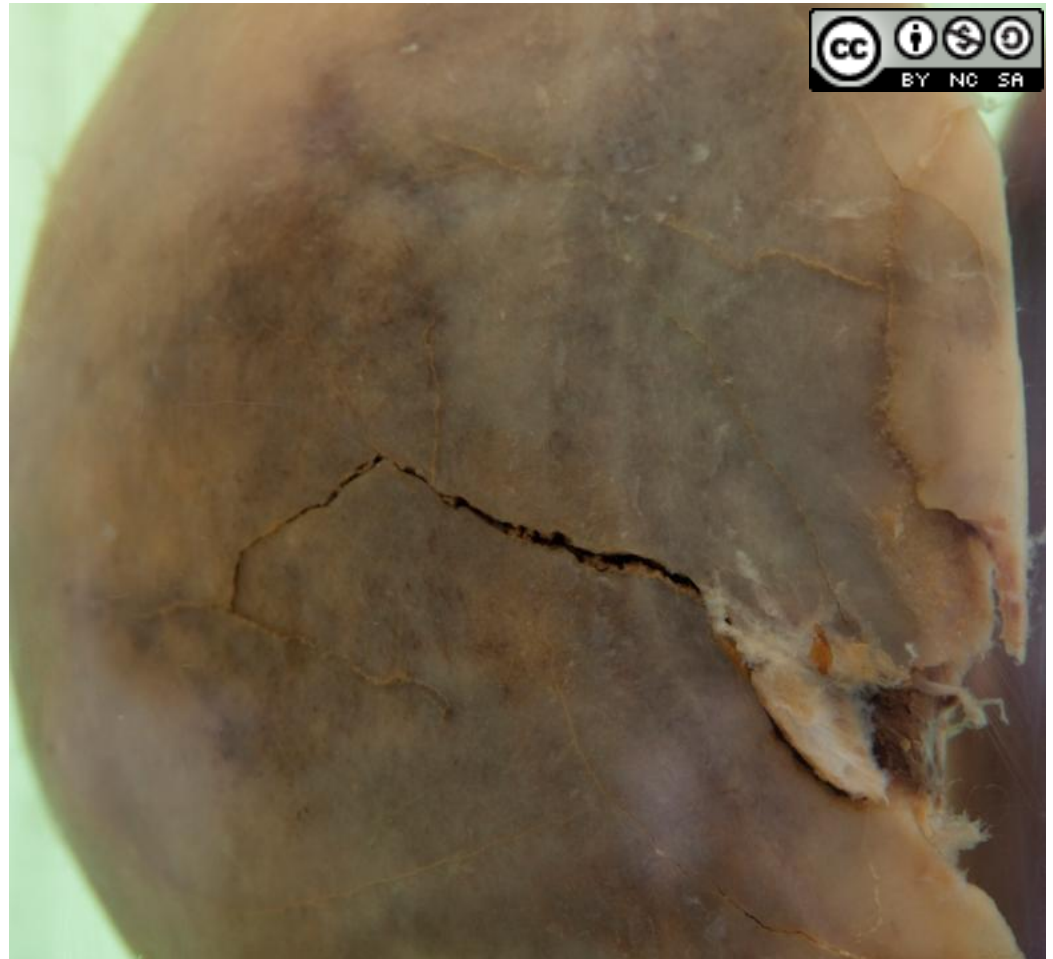




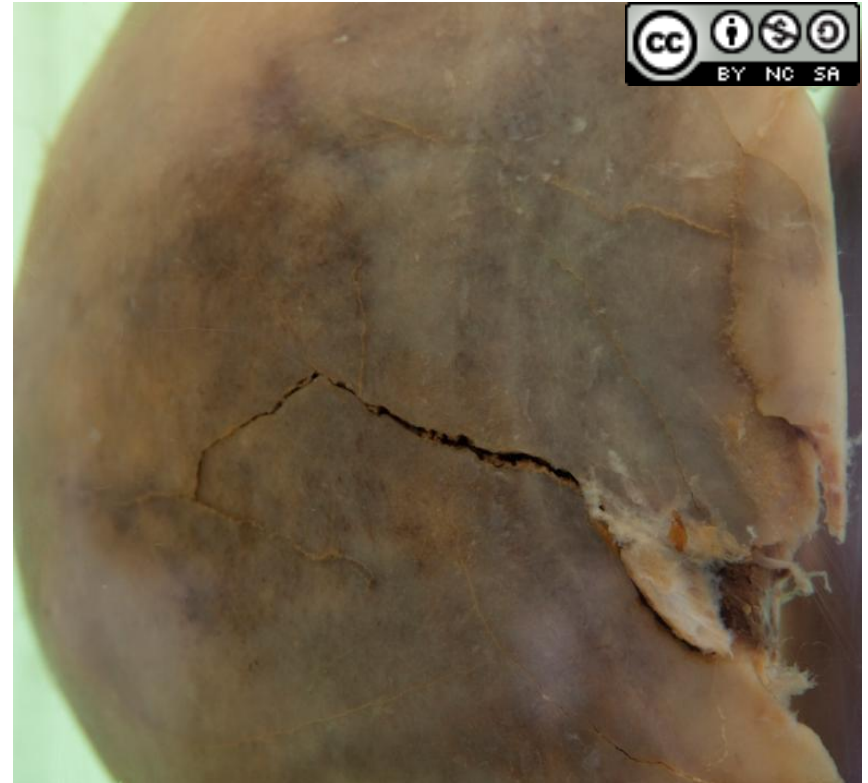
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- A side view of the specimen shows a fracture in the left parietal region.



- This is a common site for a skull fracture.
- The pterion is the weakest part of the skull
<http://en.wikipedia.org/wiki/Pterion>
- The anterior branch of the middle meningeal artery runs through the dura beneath the pterion.





- The skull fracture has resulted in laceration of artery,
- followed by a massive arterial haemorrhage.
- The haematoma which formed has a smooth convex profile.
- The haematoma would have compressed the underlying brain, resulting in pressure effects leading to the patients death.





- On the opposite undamaged side of our specimen the pterion can be seen as a thin, almost transparent area of skull.
- The grooves made by branches of the middle meningeal are seen on the inner skull in the same region
- (The grooves of the anterior and posterior meningeal arteries can also be seen.)





- Note the location of the haematoma, it lies between the dura and the internal surface of the skull i.e. it is ***epidural*** or ***extradural*** .
 - (Under arterial pressure the expanding haematoma stripped the dura from the periosteum.)
- Contrast this with a ***subdural*** haematoma, which would collect between the dura and the surface of the brain



- An epidural haemorrhage can expand rapidly and is a neurosurgical emergency.
- Decompression is required, usually by craniotomy.



- Epidural and subdural haemorrhages are both extra-axial bleeds, occurring outside of the brain substance.
- **Sub**dural haemorrhage differs from epidural haemorrhage, with regard to
 - The clinical scenario (who is at risk?)
 - the source of the haemorrhage (what vessels bleed?)
 - The clinical and pathological progression of the bleed.



- See these cases of ***sub***dural haemorrhage in the collection.....





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