

# TRAUMATIC --- HEMATOMAS

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EANS COURSE  
ANTALYA  
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# TRAUMATIC HEMATOMAS

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## PATHOLOGY

- Hematomas 2cm or greater in size, not in contact with the surface of the brain
- Incidence 4-23%. 15% of autopsy of severe head injury.

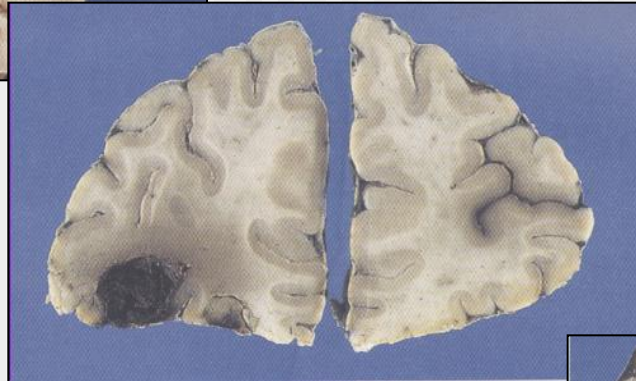
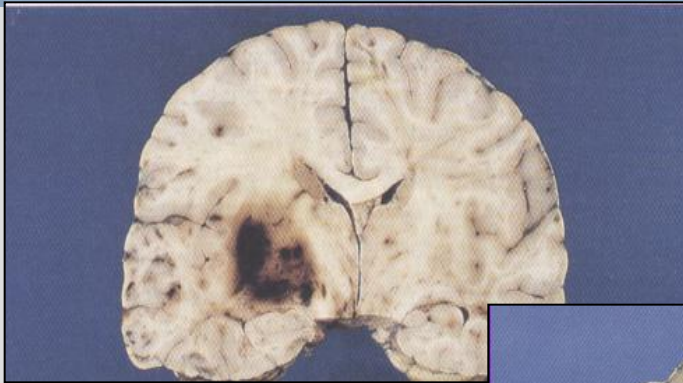
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## PATHOLOGY

- Pathogenesis
- Lobar, basal ganglia, intraventricular, brainstem, corpus callosum
- Delayed (DTICH)

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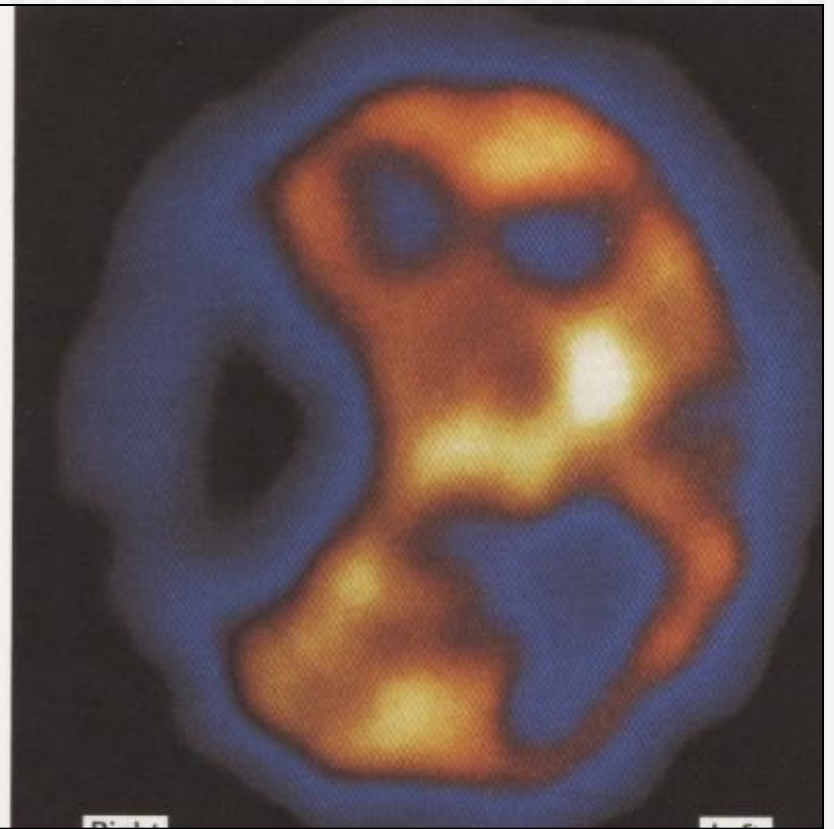
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## PATHOLOGY

- Single/multiple
- Isolated/association  
(28% SDH; 10% EDH)
- Clinical presentation

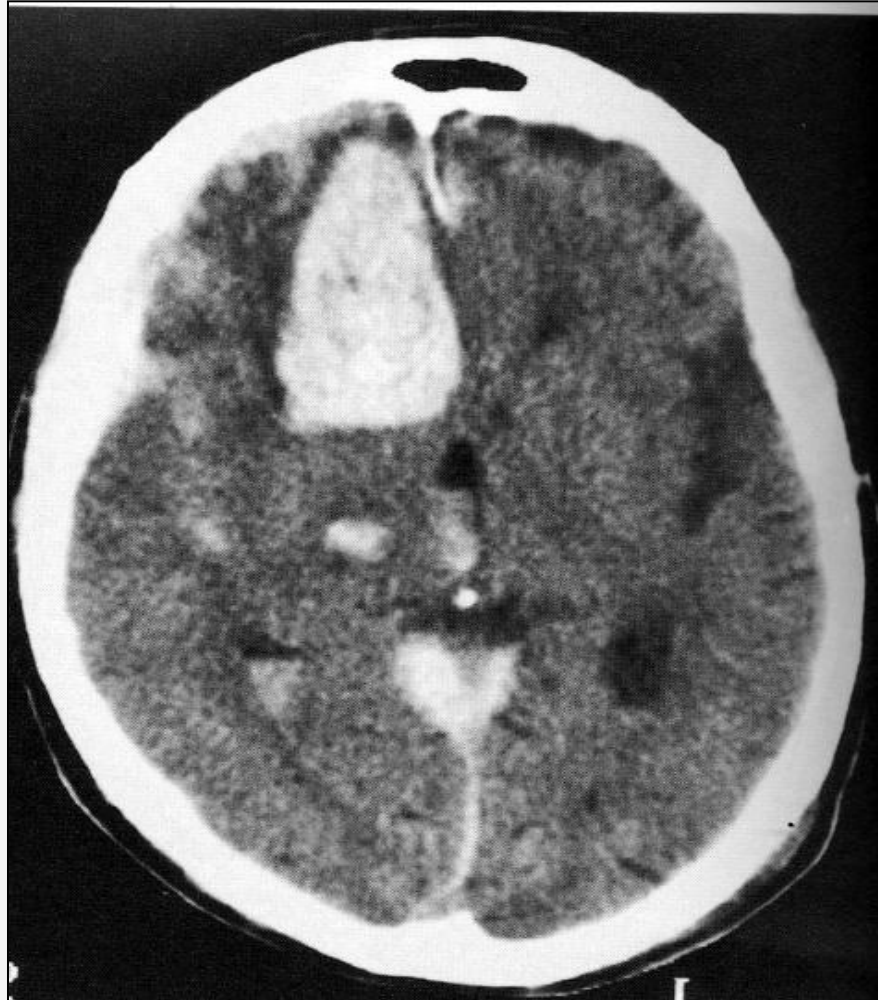
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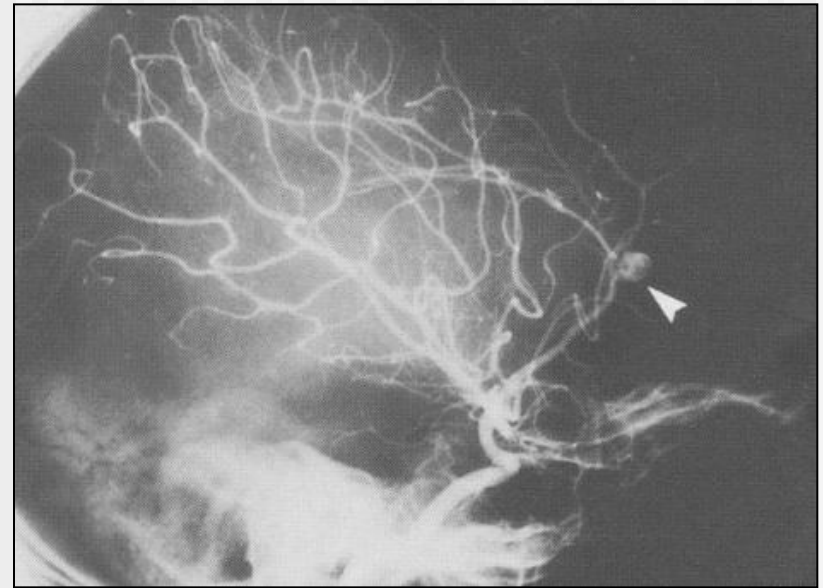
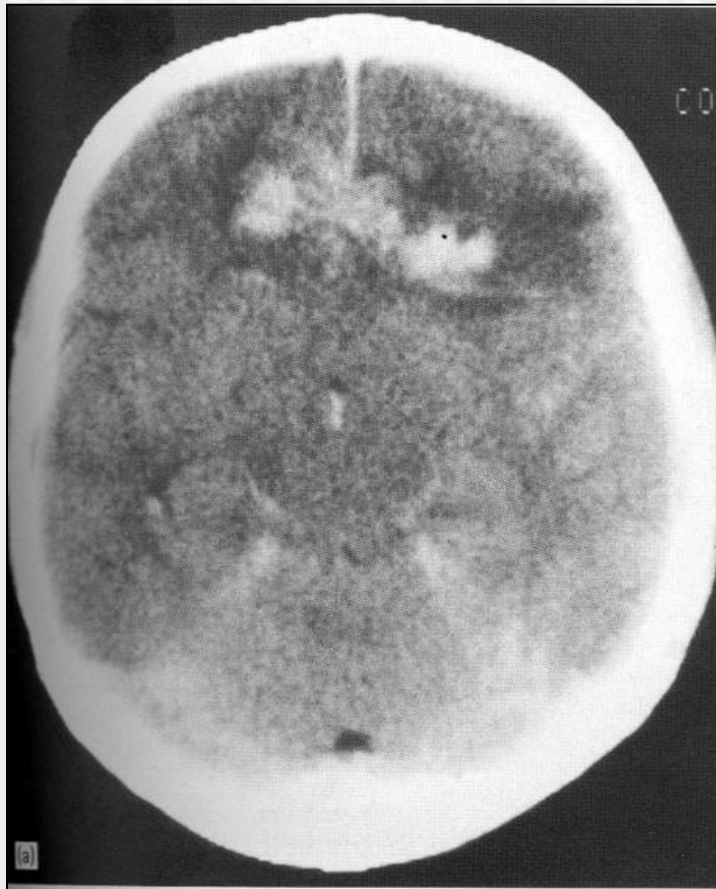
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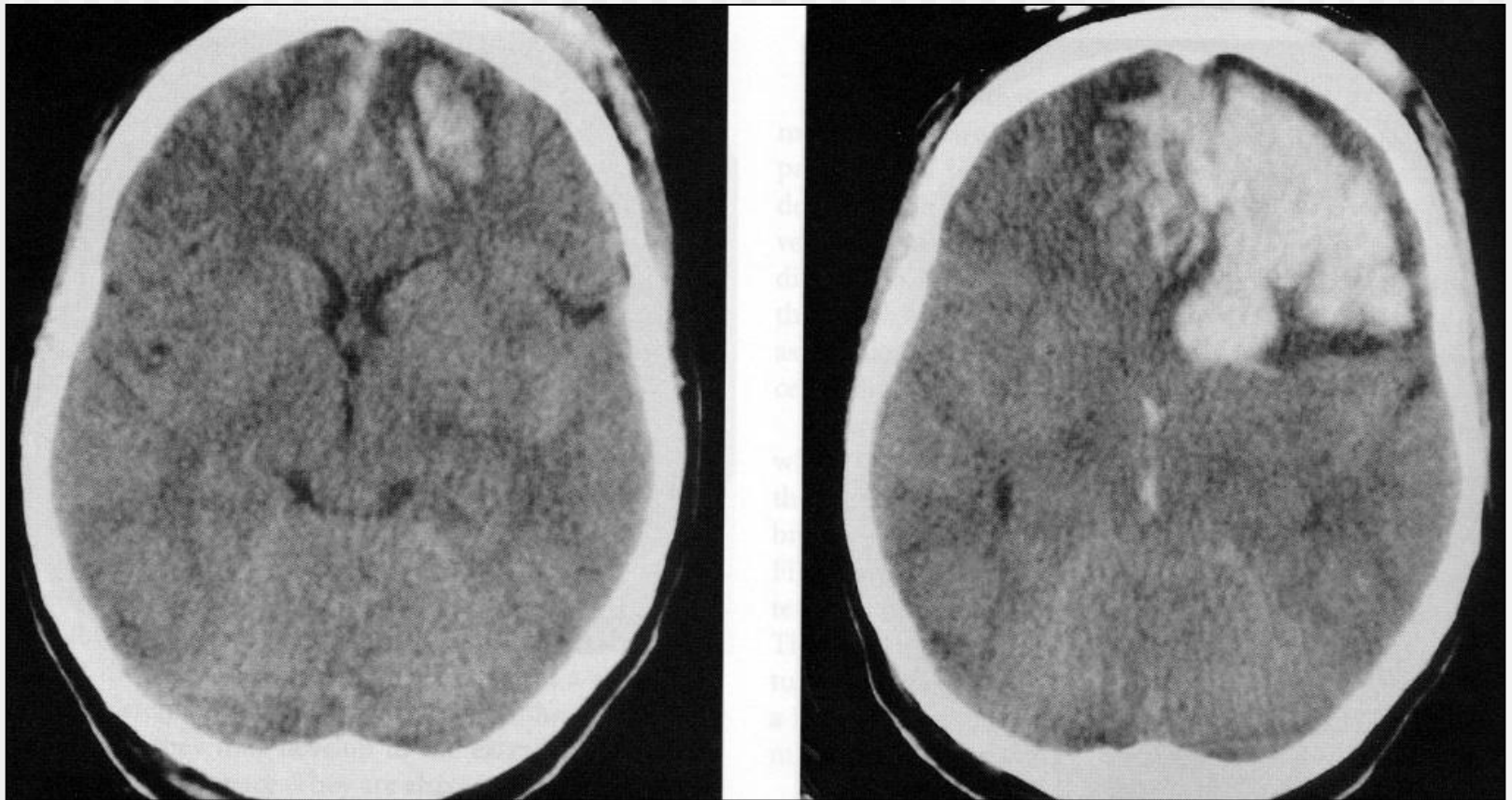
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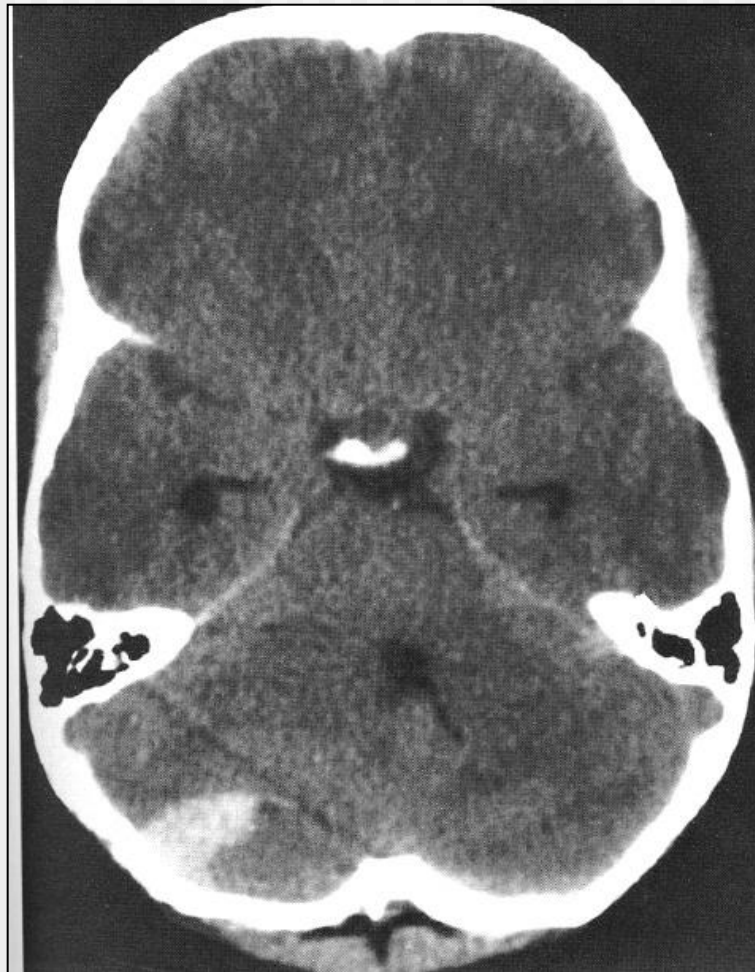
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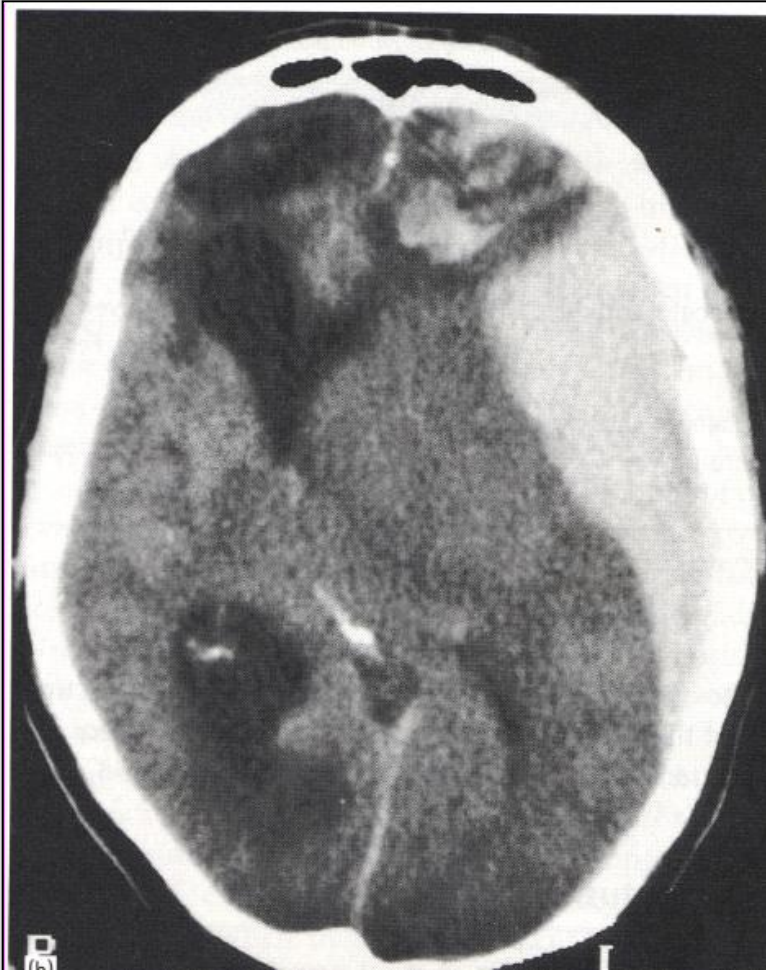


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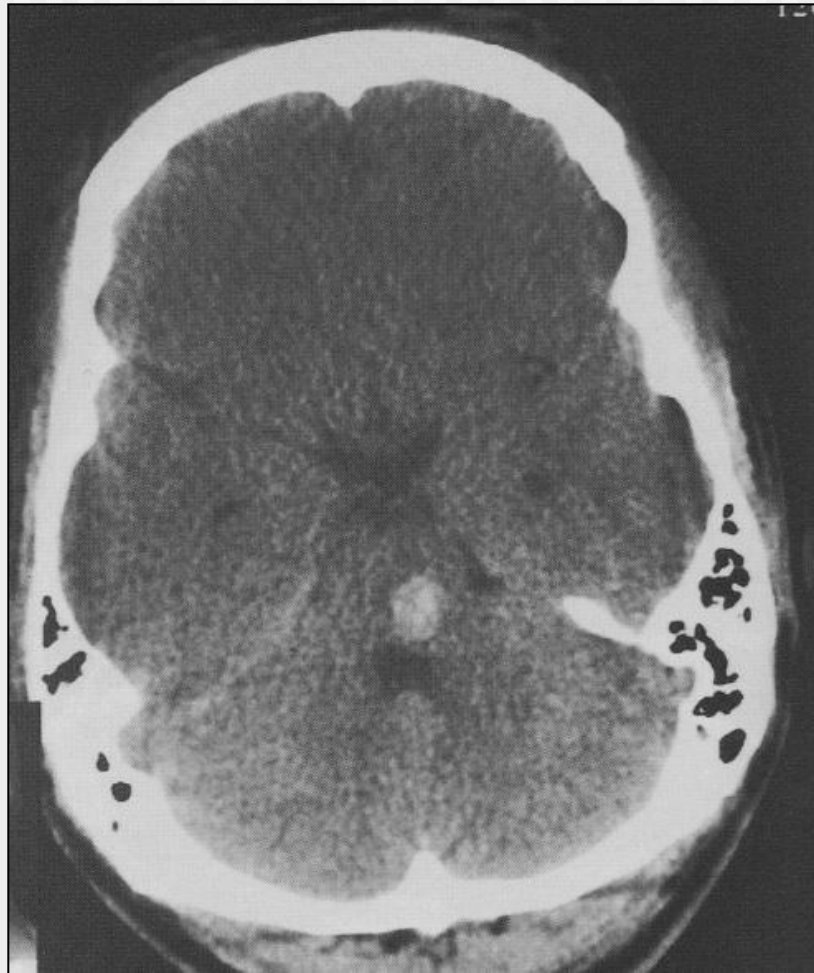


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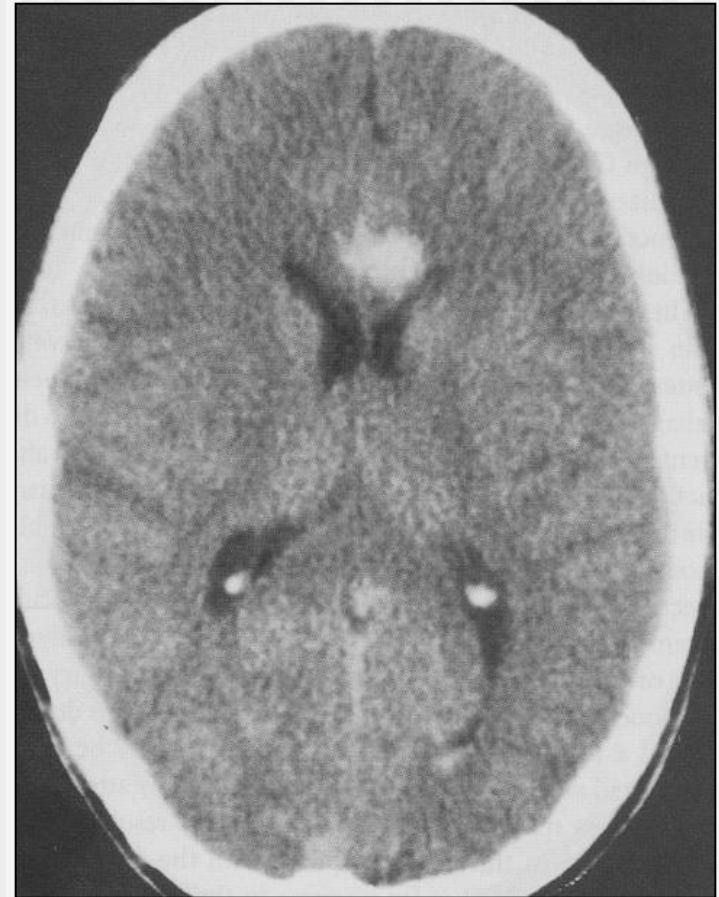
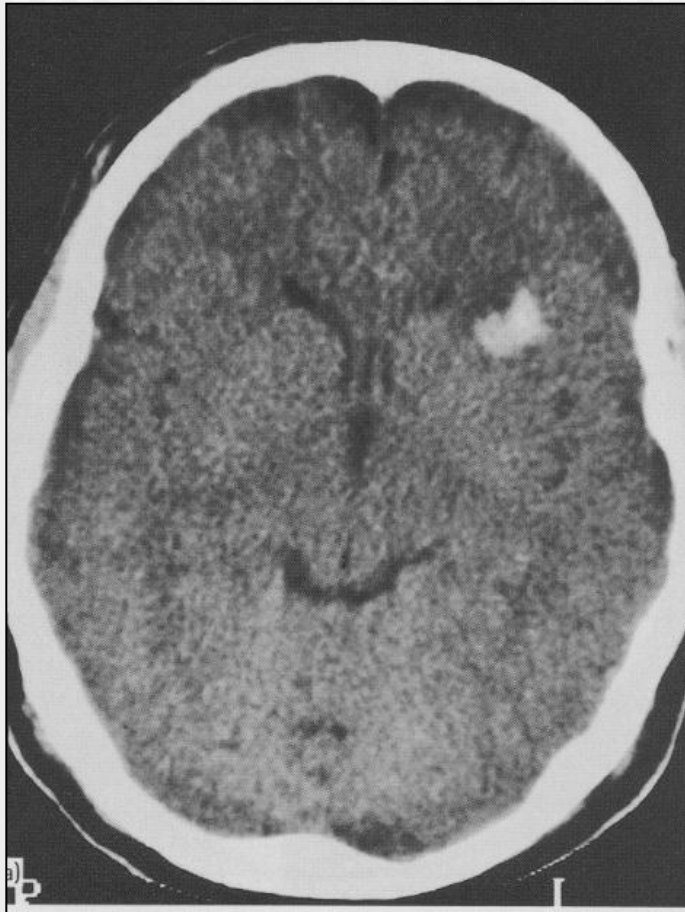
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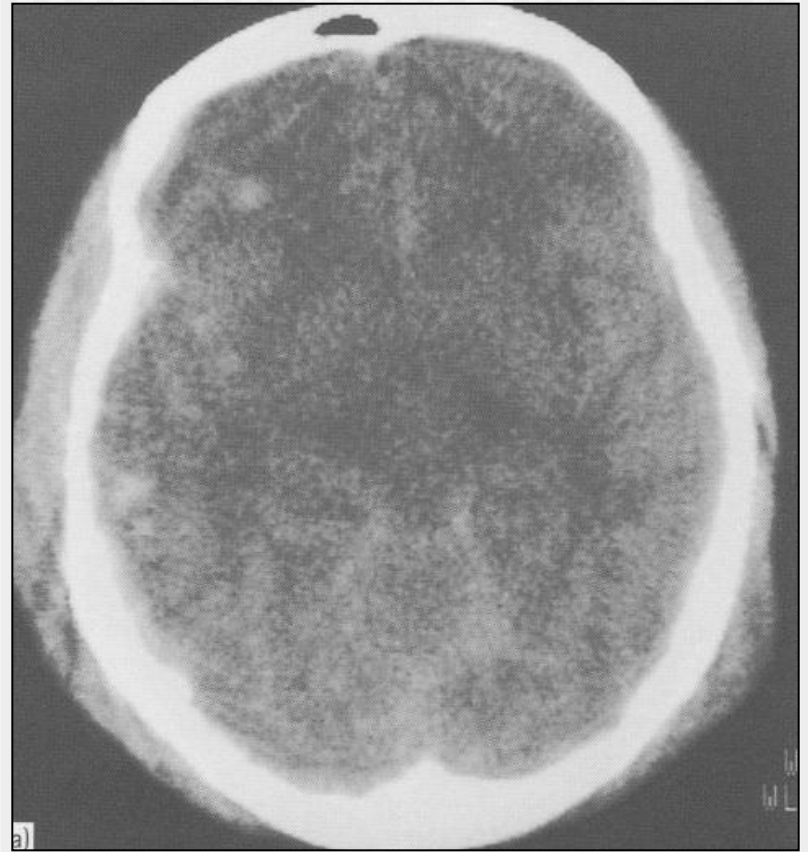
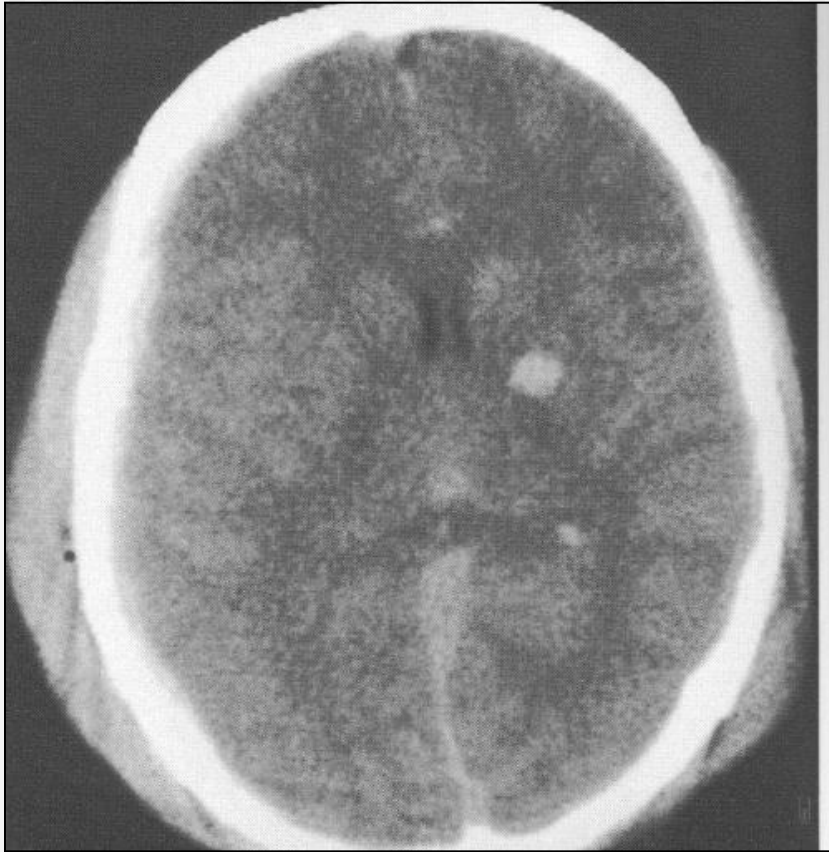
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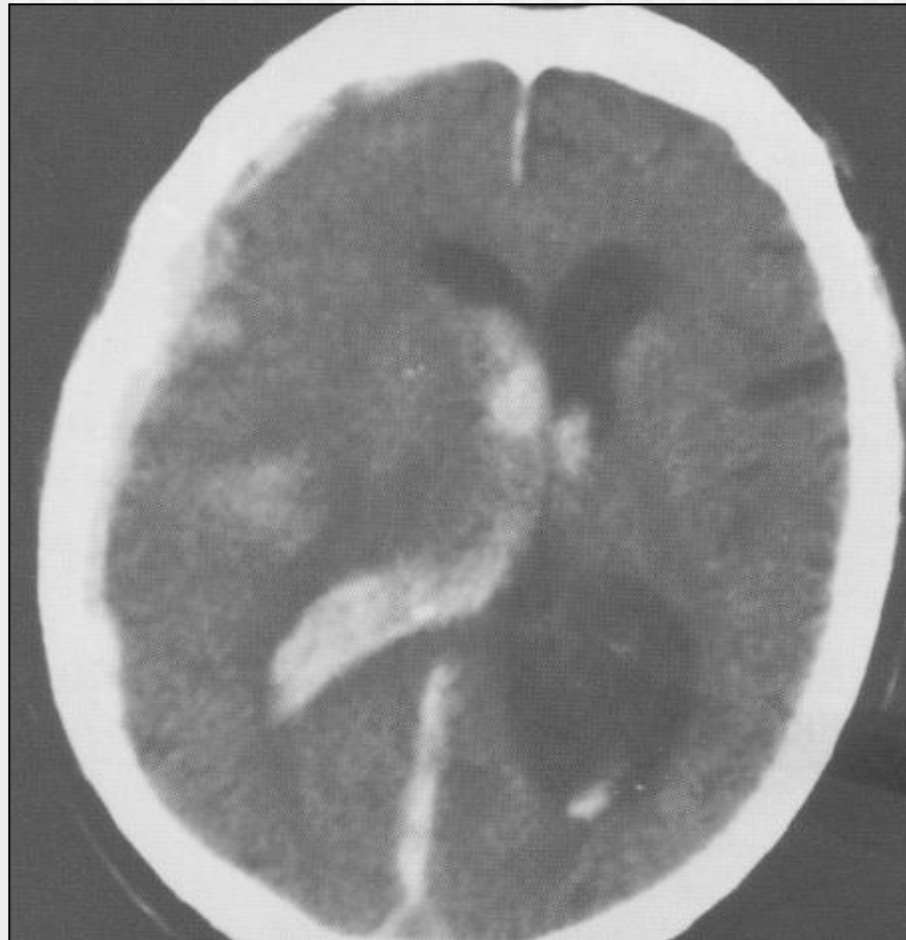
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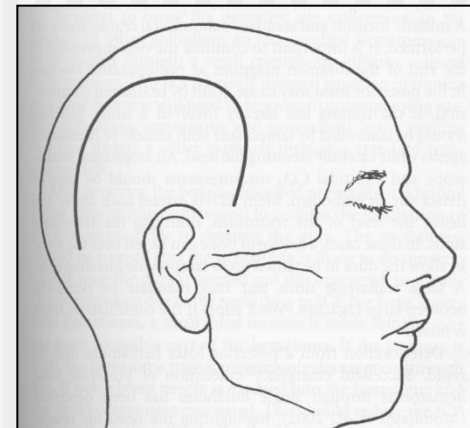
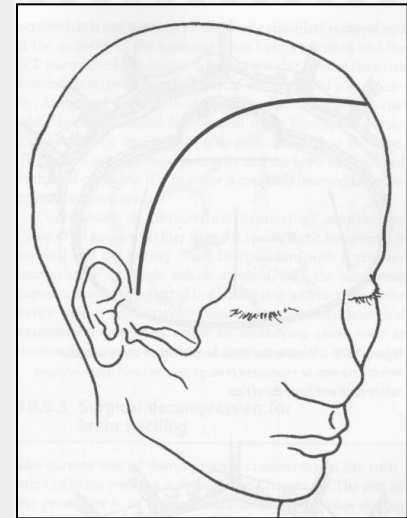
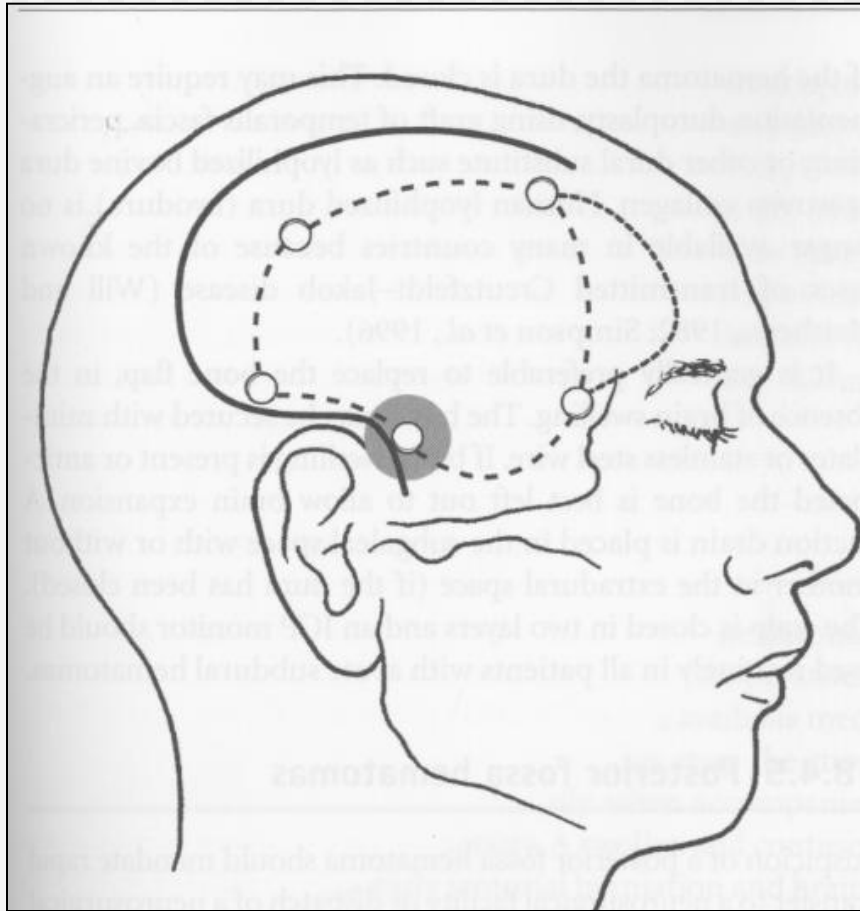
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## 18.3.1 Guidelines for initial conservative therapy

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Non-operative therapy should *only* be considered:

1. In patients who are fully conscious.
2. When the extra-axial mass lesion is the single dominant lesion, i.e. there should not be multiple contusions, or potentially significant contralateral mass lesions (which may be preventing midline shift).
3. When there are no features of mass effect such as midline shift greater than 3 mm, or basal cistern effacement (Bullock and Teasdale, 1991).

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*et al., 2001).*

Indications for surgical removal include but are not limited to the following:

1. In the conscious, communicating, non-ventilated patient –
  - decline in conscious state;
  - development of focal signs;
  - severe and especially worsening headache, nausea or vomiting.
2. In the unconscious, non-communicating, ventilated patient –
  - decline in neurological state. This may only be indicated by the development of brainstem signs;
  - sustained increase in ICP e.g. 20 mmHg for more than 1 hour.

**(Either of these developments should lead to an urgent CT scan.)**

- increase in hematoma size on CT scan (Galbraith and Teasdale, 1981).

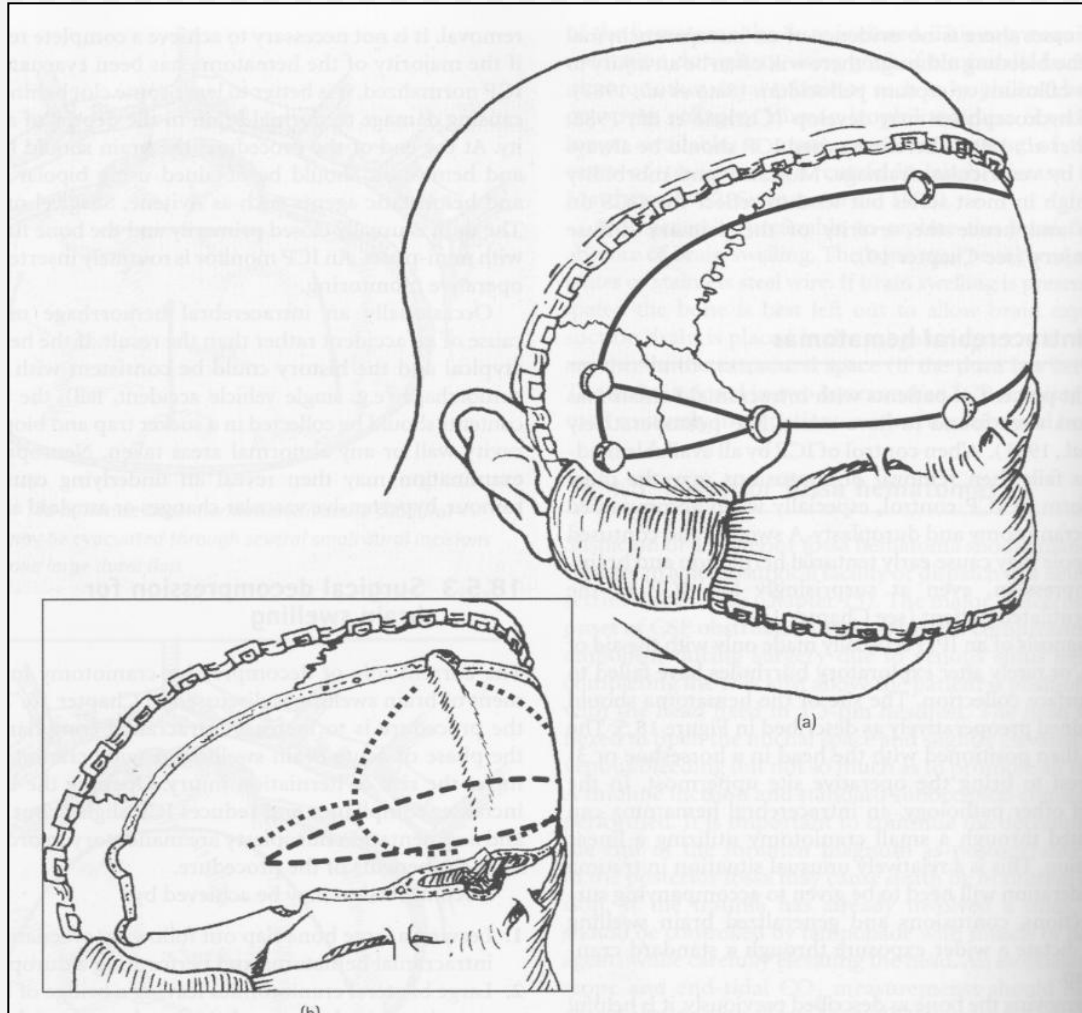
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## **(b) Timing and methods**

- Craniotomy with evacuation of mass lesion is recommended for those patients with focal lesions and the surgical indications listed above.
- Bifrontal decompressive craniectomy within 48 hours of injury is a treatment option for patients with diffuse, medically refractory post-traumatic cerebral edema and resultant intracranial hypertension.
- Decompressive procedures, including subtemporal decompression, temporal lobectomy, and hemispheric decompressive craniectomy, are treatment options for patients with refractory intracranial hypertension and diffuse parenchymal injury with clinical and radiographic evidence for impending transtentorial herniation.

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## (iv) Posterior fossa mass lesions

### (a) Indications

- Patients with mass effect on CT scan *or* with neurological dysfunction **or** deterioration referable to the lesion should undergo operative intervention. Mass effect on CT scan is defined as distortion, dislocation, or obliteration of the fourth ventricle, compression or loss of visualization of the basal cisterns, or the presence of obstructive hydrocephalus.

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- Patients with lesions and no significant mass effect on CT scan and without signs of neurologic dysfunction may be managed by close observation and serial imaging.

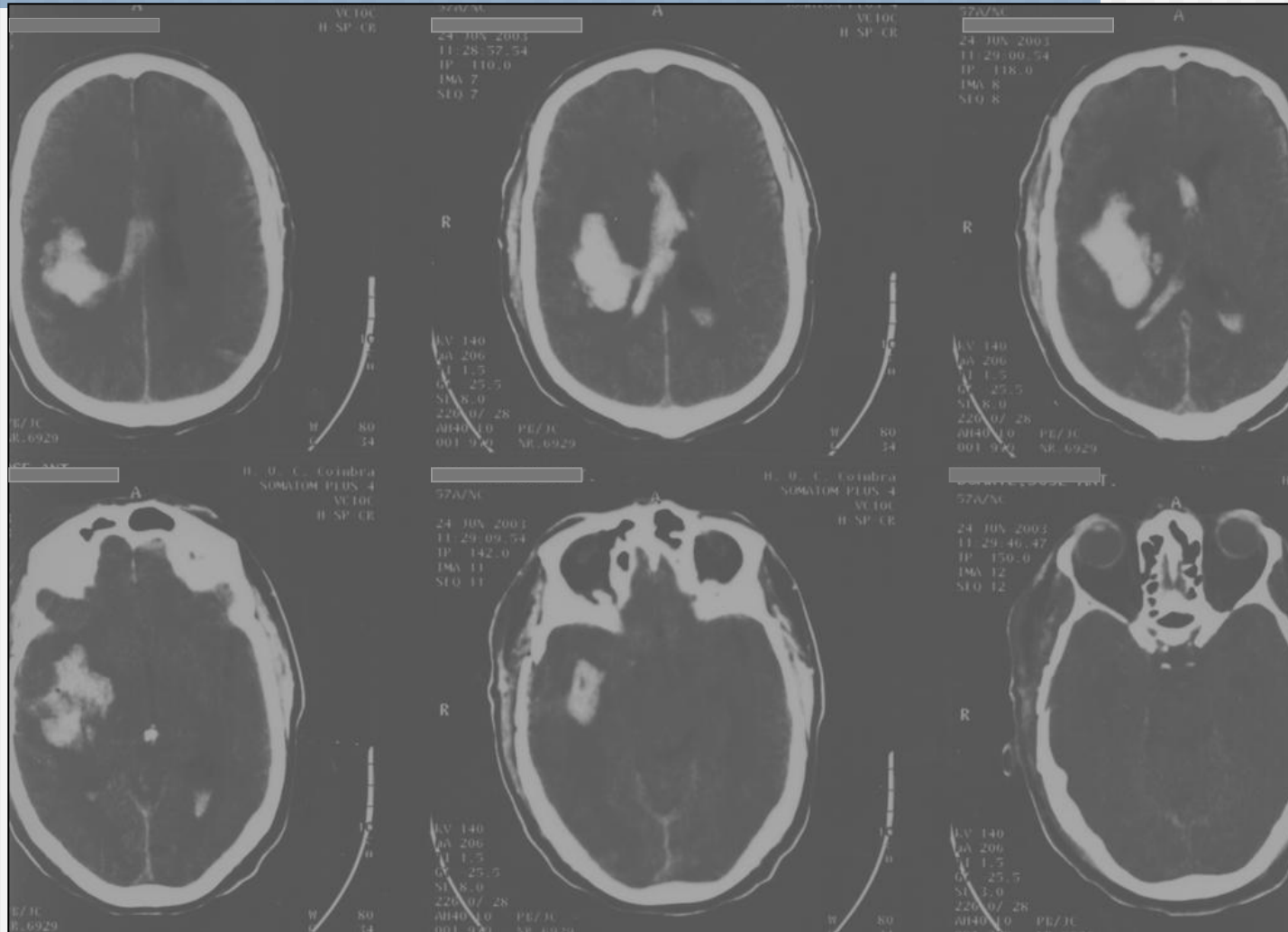
## **(b) Timing**

- In patients with indications for surgical intervention, evacuation should be performed as soon as possible since these patients can deteriorate rapidly, thus worsening their prognosis.

## **(c) Methods**

- Suboccipital craniectomy is the predominant method reported for evacuation of posterior fossa mass lesions, and is therefore recommended.

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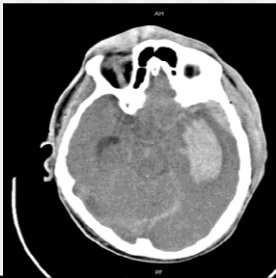


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