

CNS pathology  
Third year medical students

Dr Heyam Awad

**brain haemorrhage**

# Traumatic vs non traumatic

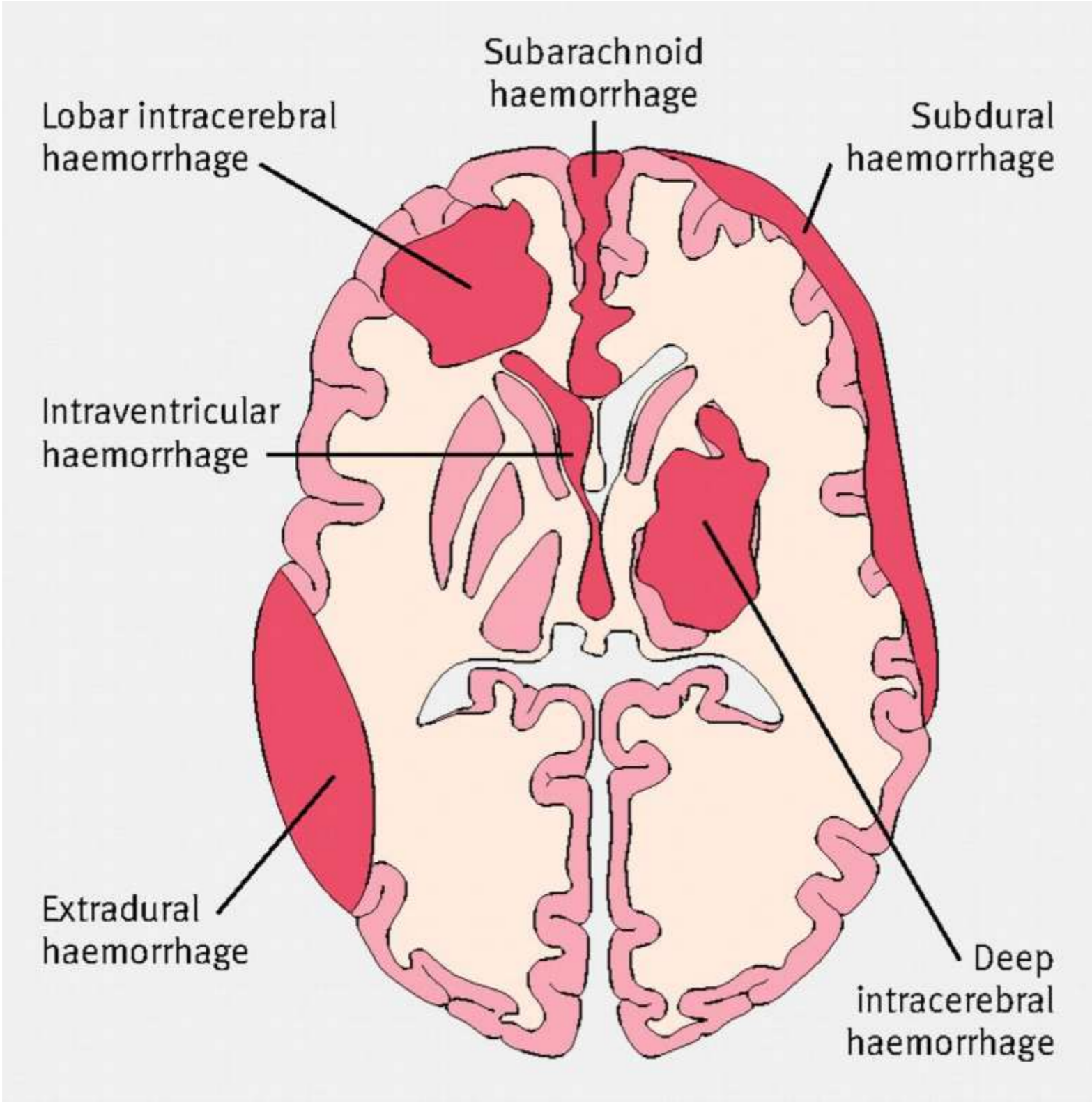


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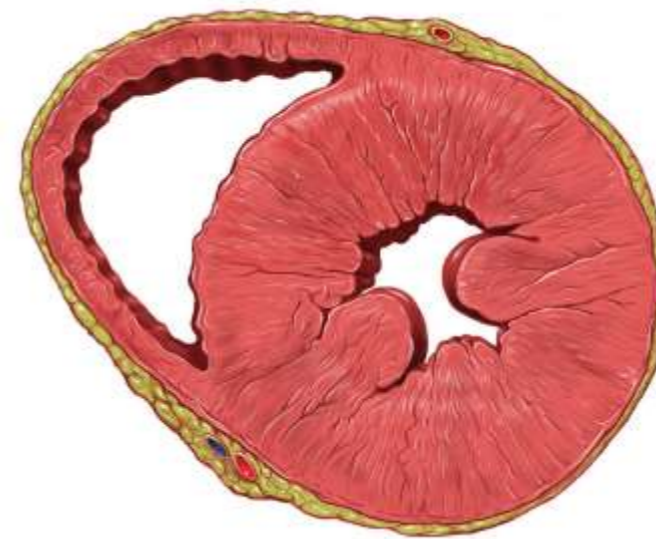
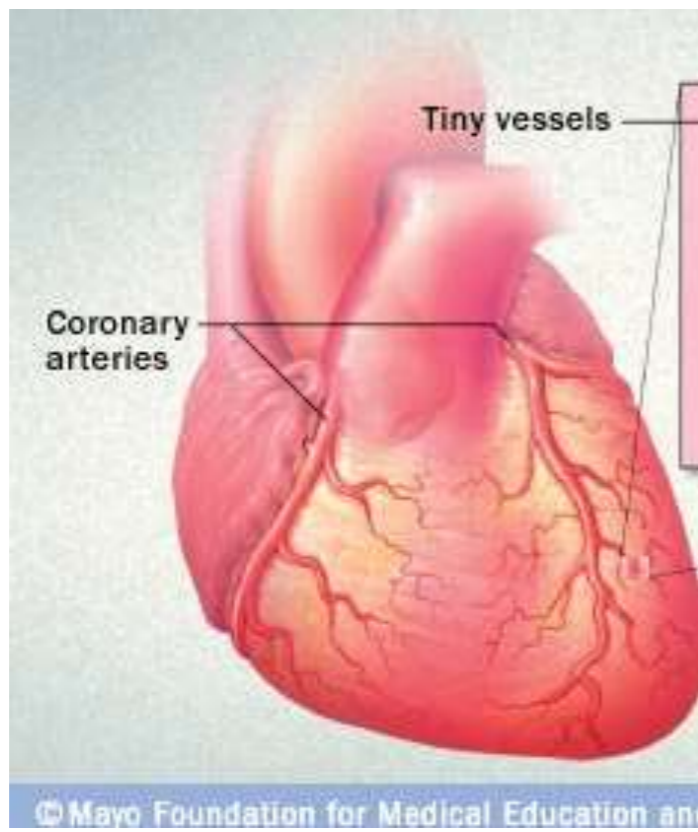
# Case 1

- Mr H ( 65 years old) was enjoying a vacation in Hawaii with his wife to celebrate their 30th marriage anniversary. While having dinner he told his wife that he felt a sudden headache but continued eating!! a few minutes later he collapsed died.

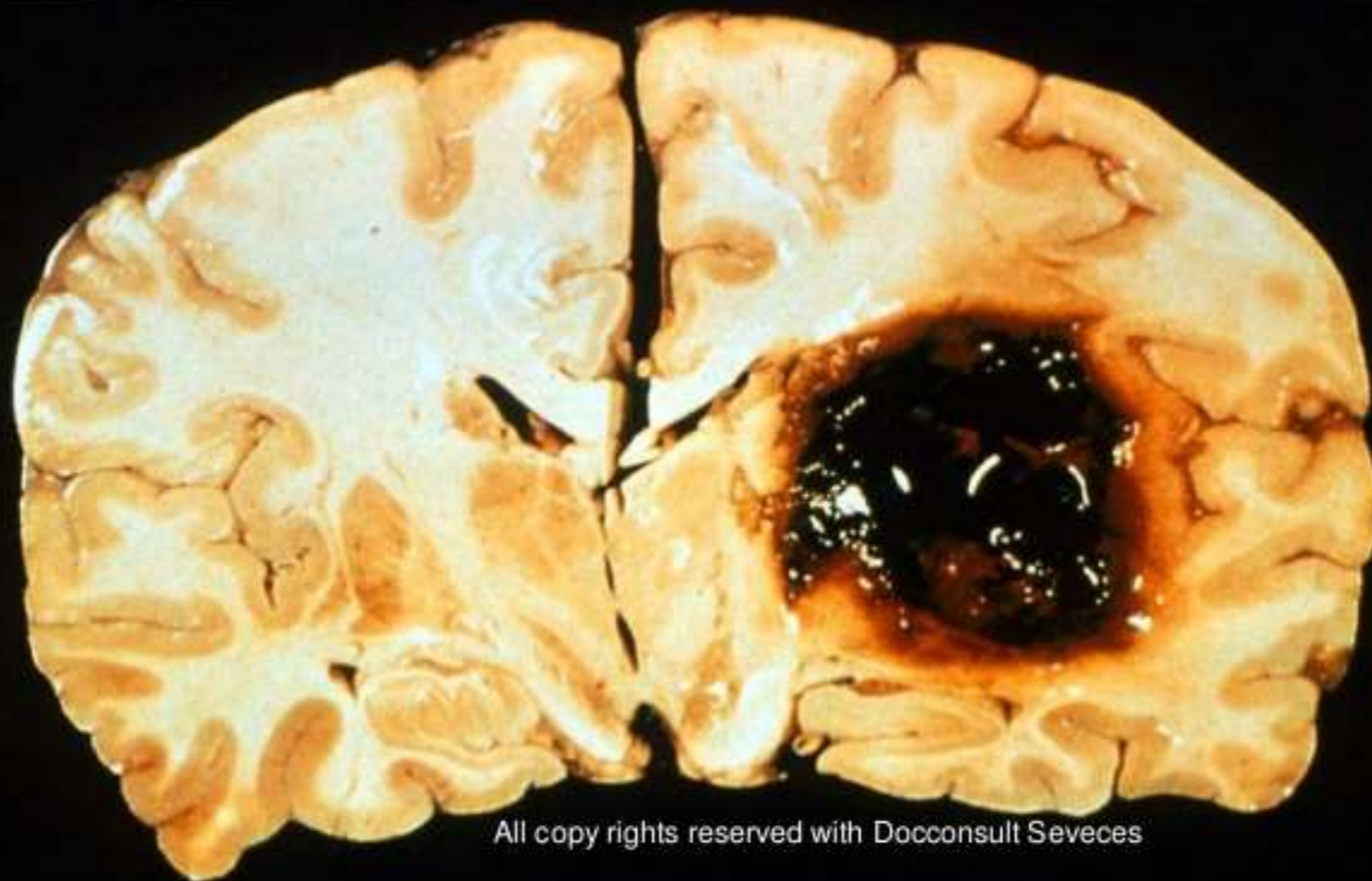


- Mr H was taken to hospital where death was confirmed.
- What's the next step doctors should take?

- An autopsy was performed.
- What organ systems must the pathologist focus on while undertaking the autopsy in this case?



# AUTOPSY OF INTRACEREBRAL HEMORRHAGE

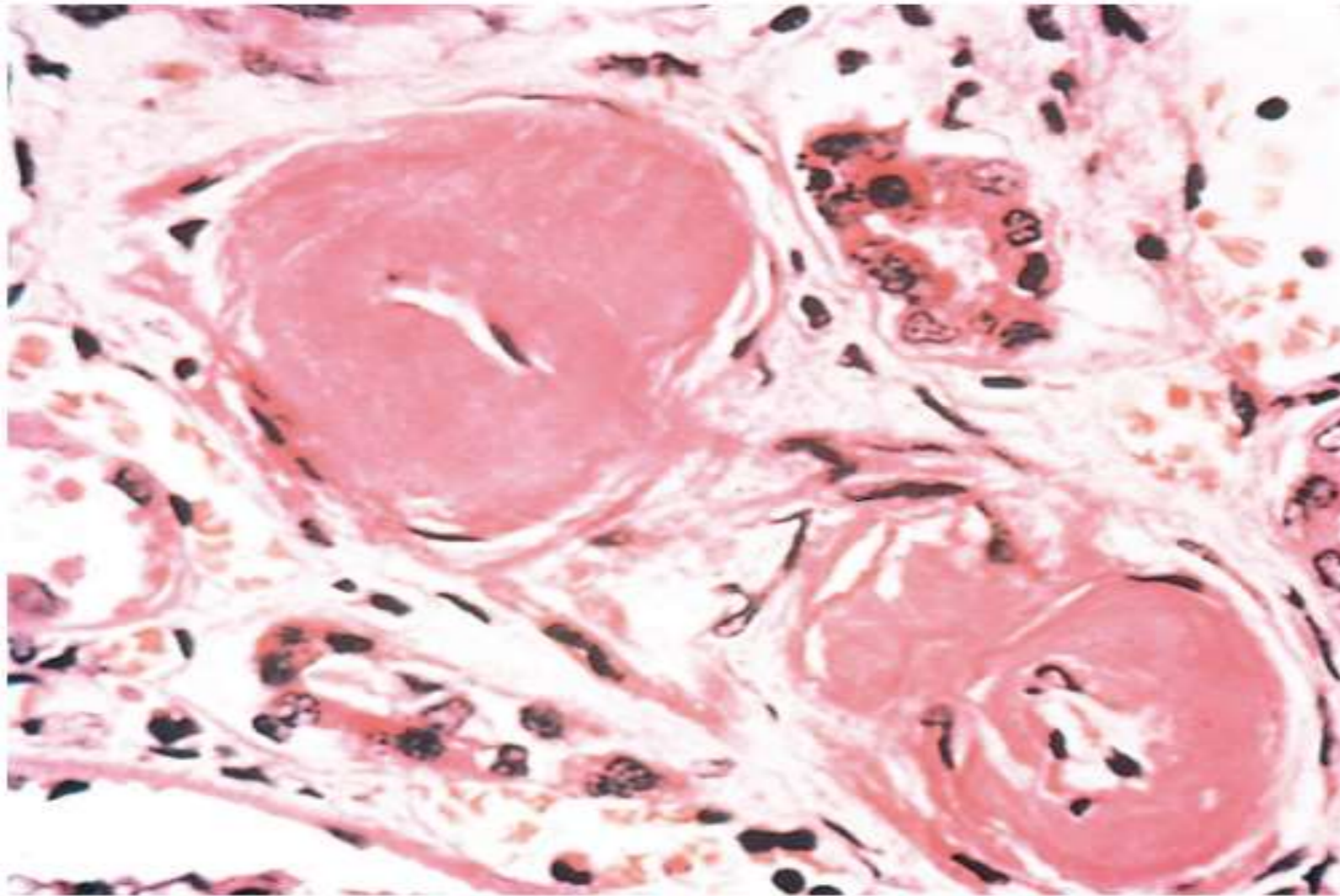


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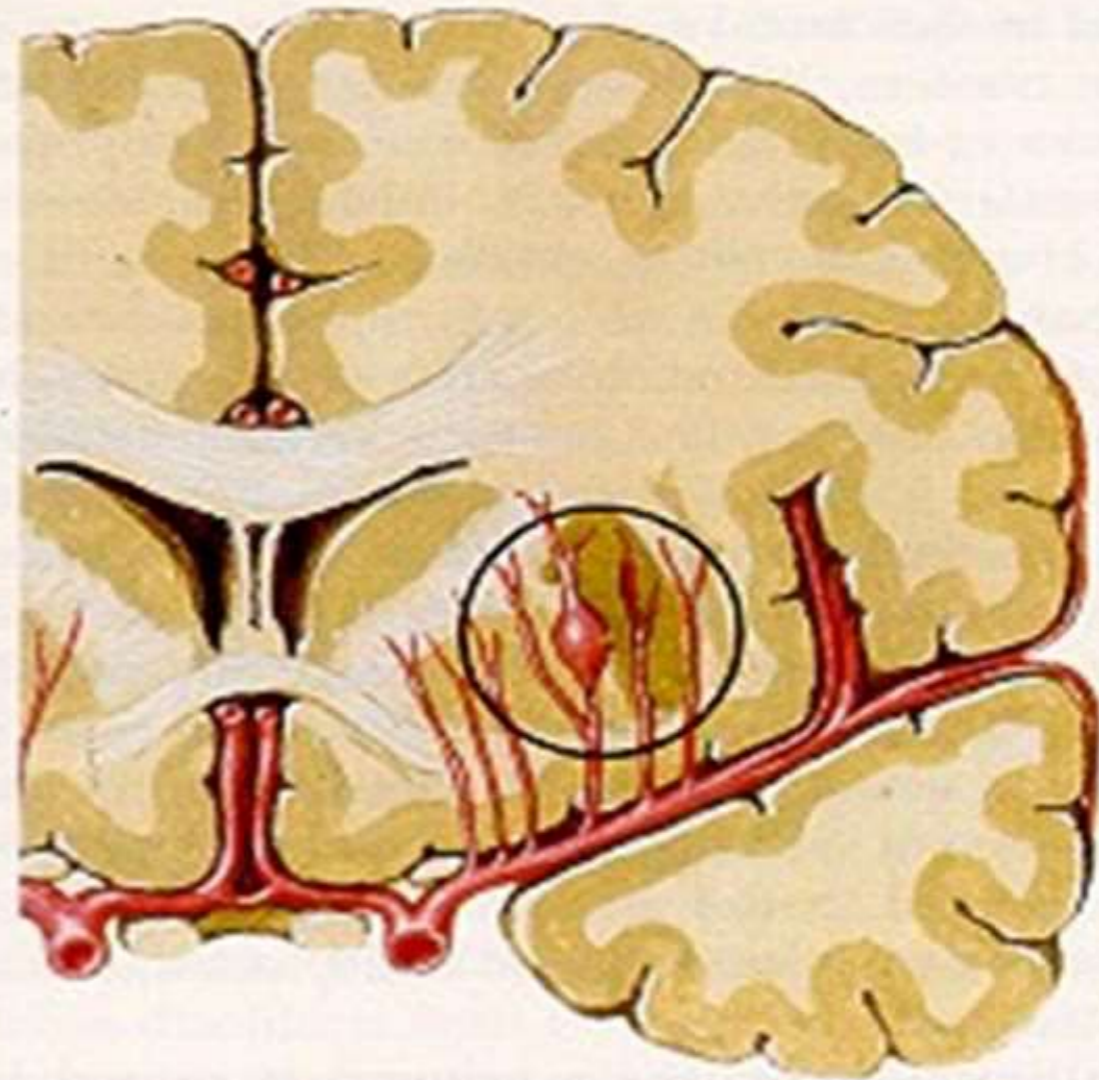


- What is the cause of death.
- What is the underlying cause?
- How can hypertension cause haemorrhage?

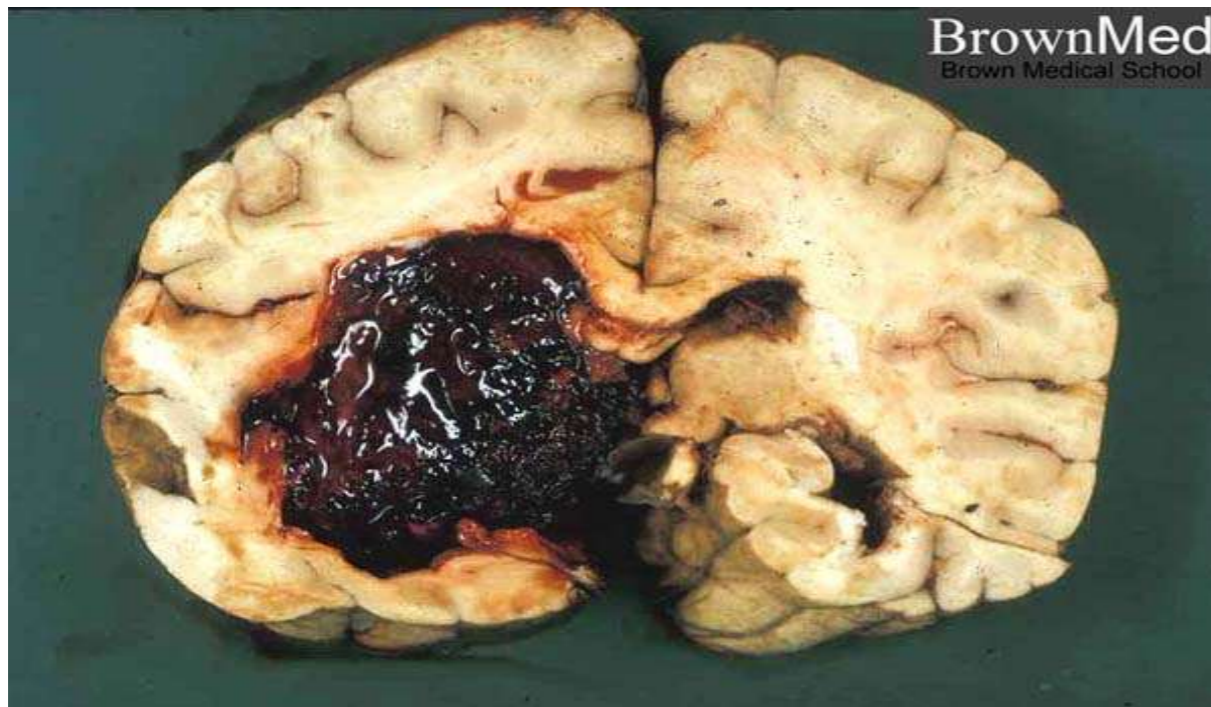
# Hyaline arteriolosclerosis



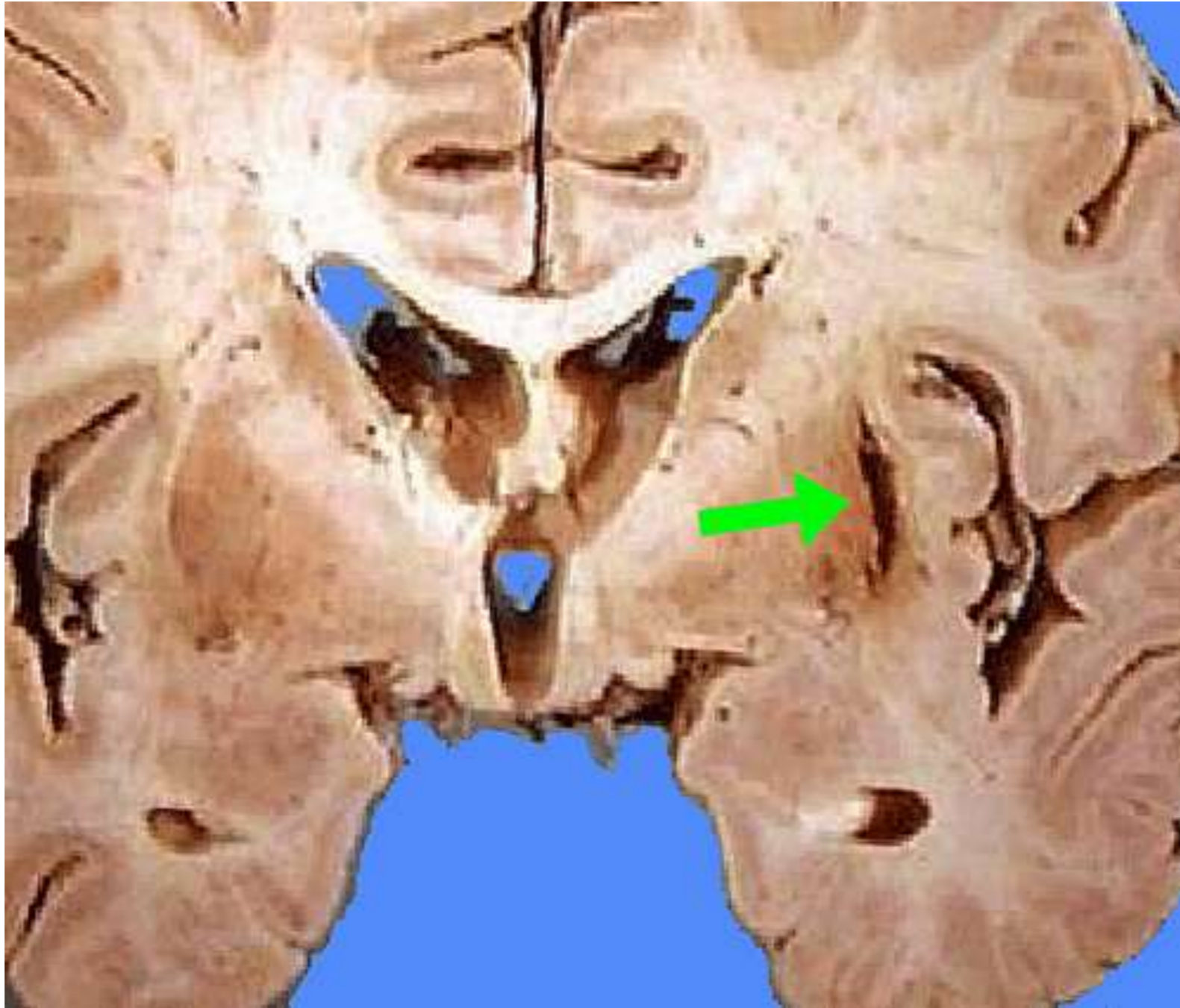
**Microaneurysms  
in penetrating  
arteries**



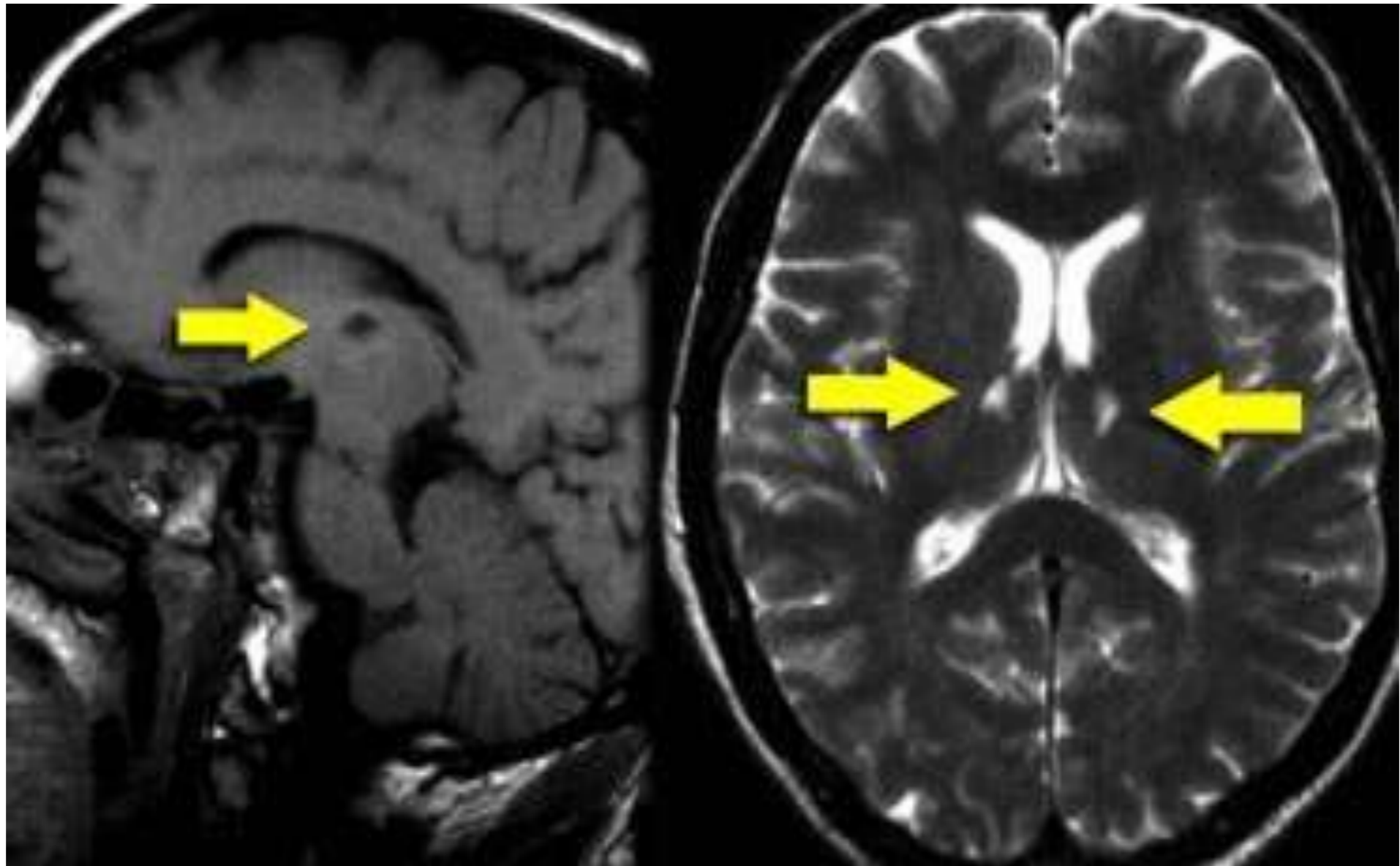
# Brain haemorrhage



# slit haemorrhage



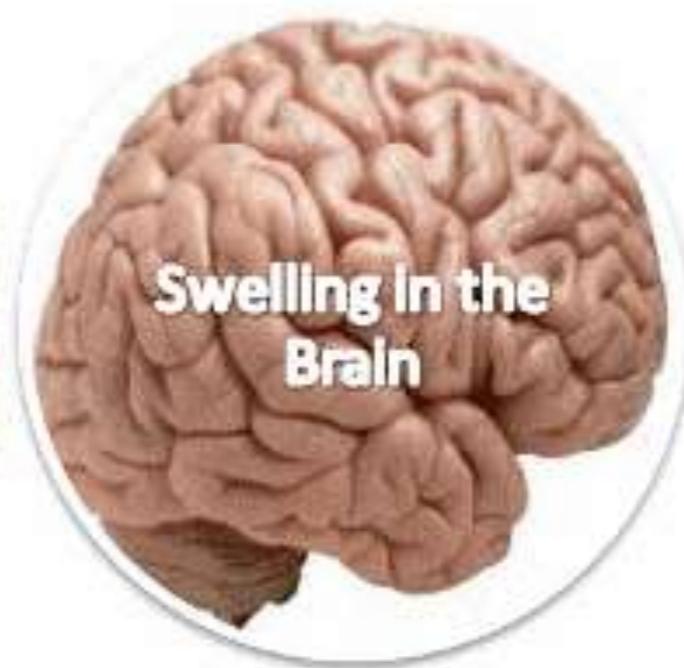
# Lacunar infarct



**Hypertensive  
Encephalopathy**



**Swelling in the  
Brain**



<http://papahealth.com/>

# Take home message



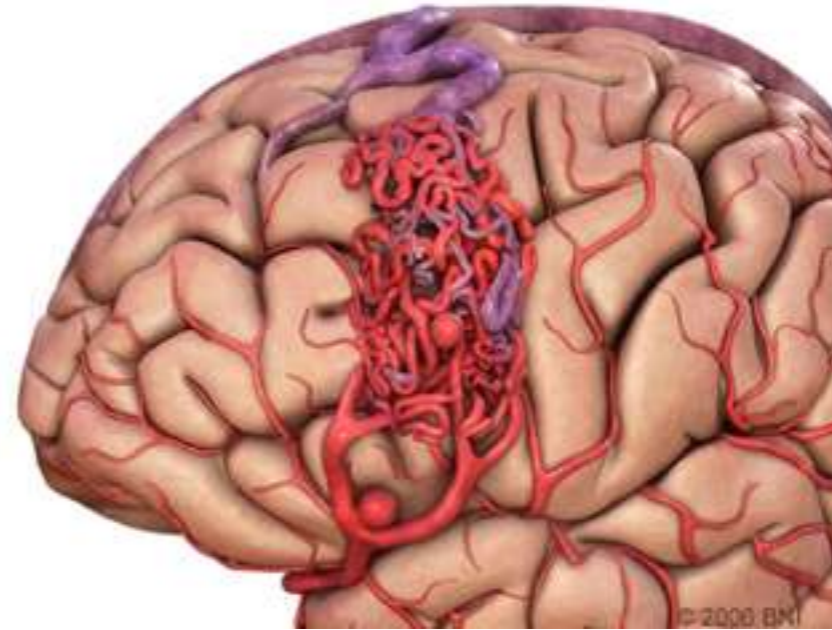


# case 2

- A 16 year old boy had seizures for the past two years. The school called his mum to collect her son who had a **severe headache and then vomited**.
- His mother took him to the hospital and a CT scan was performed that showed an intracerebral haemorrhage
- What's the most likely cause ?



M1360300 [RM] (c) www.visualphotos.com

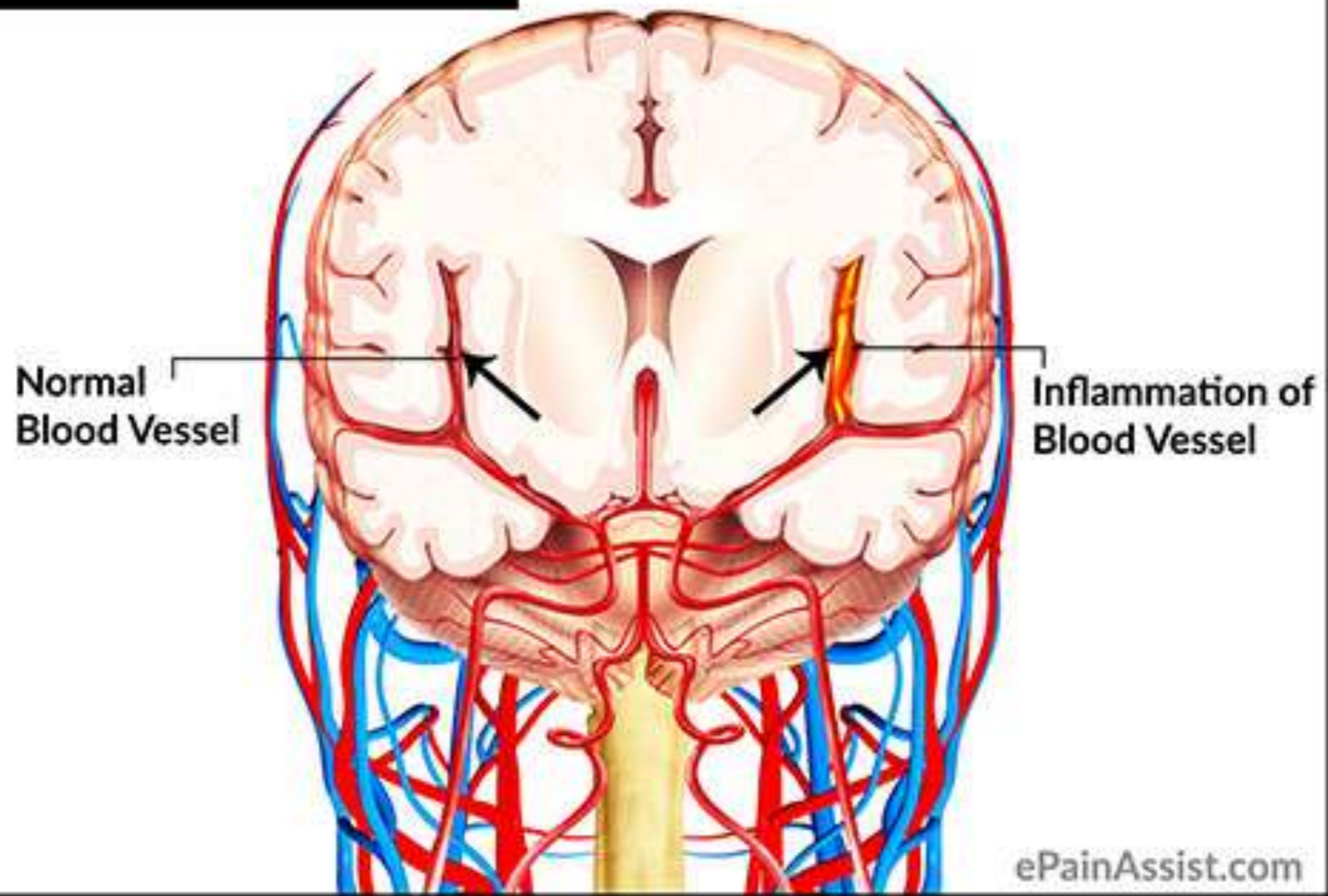


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# case 3

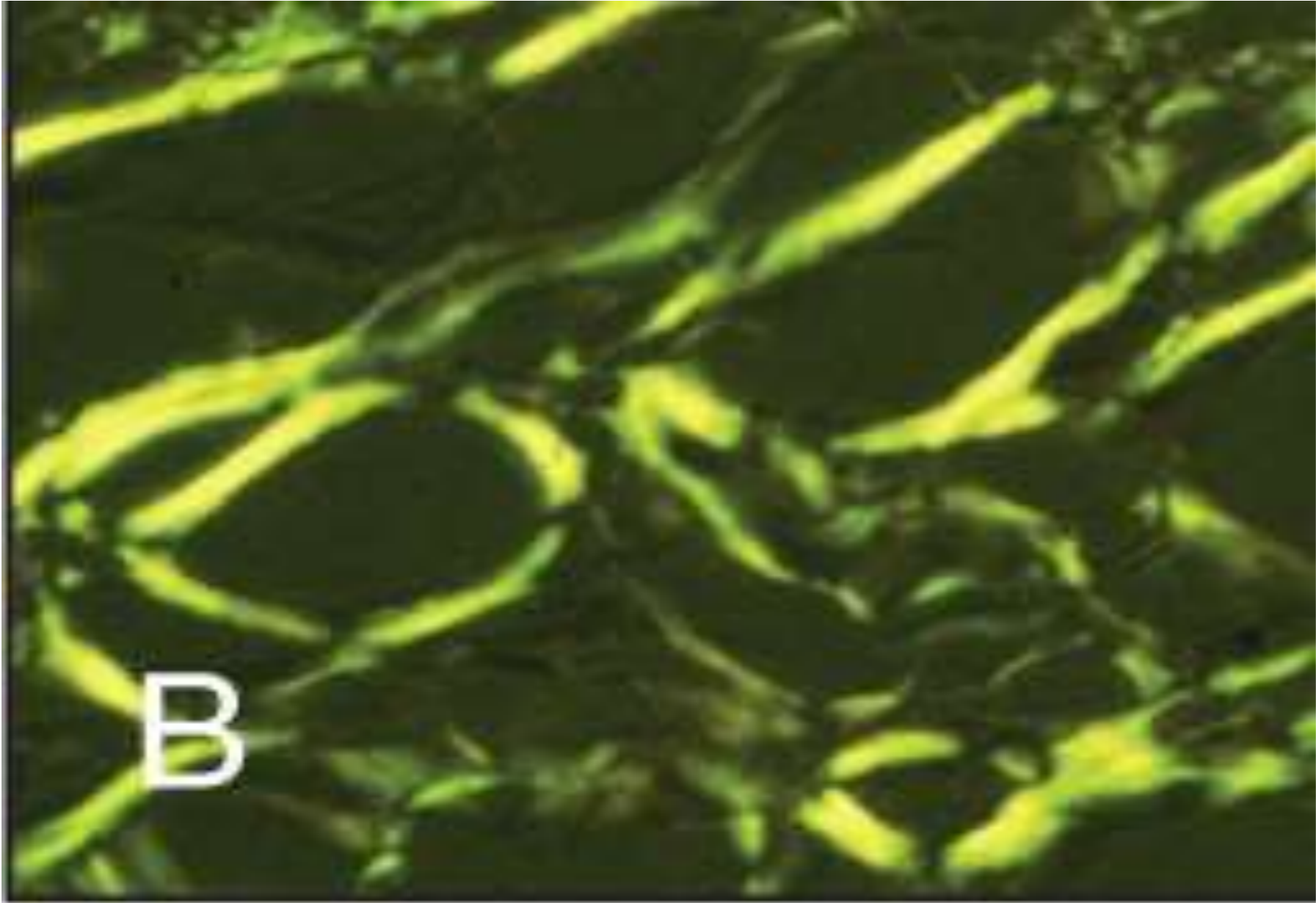
- A 32 year old male, known of having HIV infection, had neurological symptoms which on investigation were found to be due to an intracerebral haemorrhage
- ? Cause

## Cerebral Vasculitis

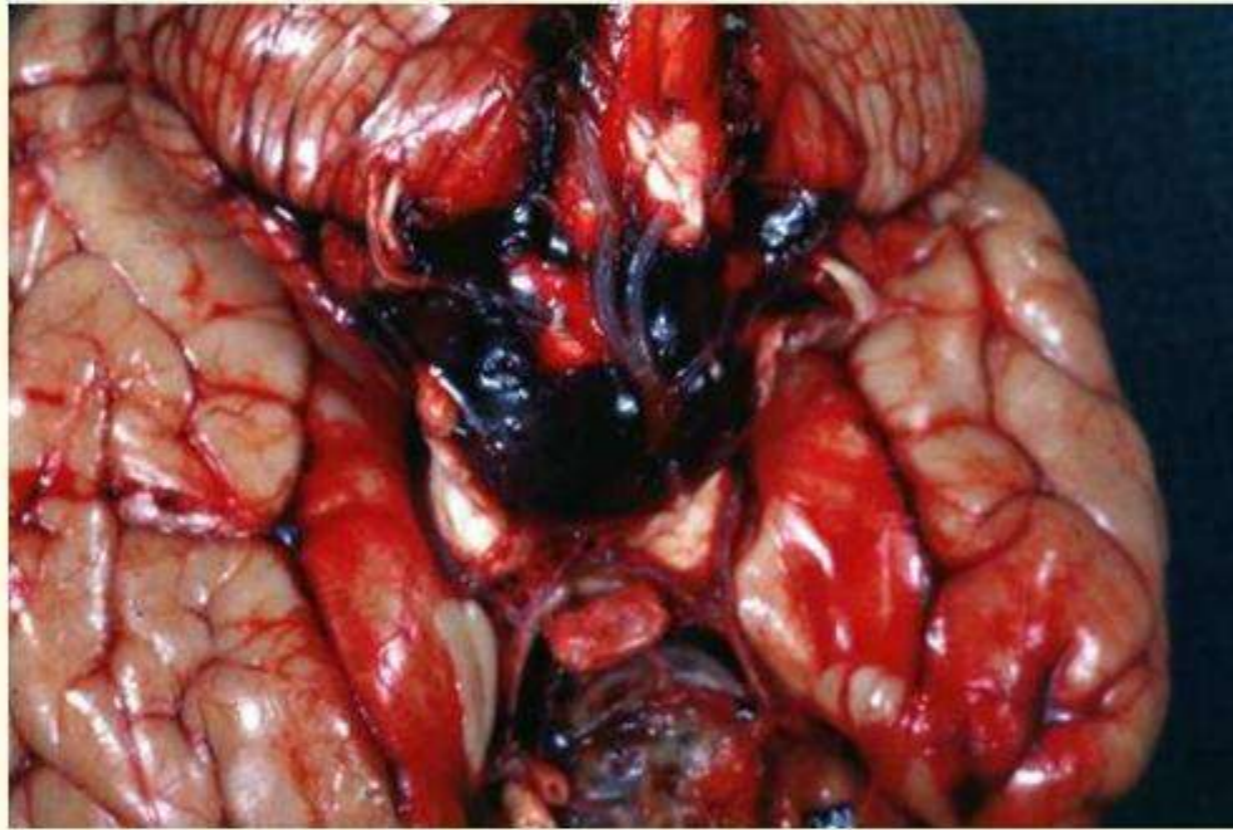


# case 4

- A 45 year old woman with a long standing history of rheumatoid arthritis developed weakness in her right leg which was followed by headache and vomiting. On examination her **blood pressure was 180/95, heart rate 40/ minute and you noticed shallow breathing.**
- CT scan showed an intracerebral haemorrhage, can you suggest a cause???

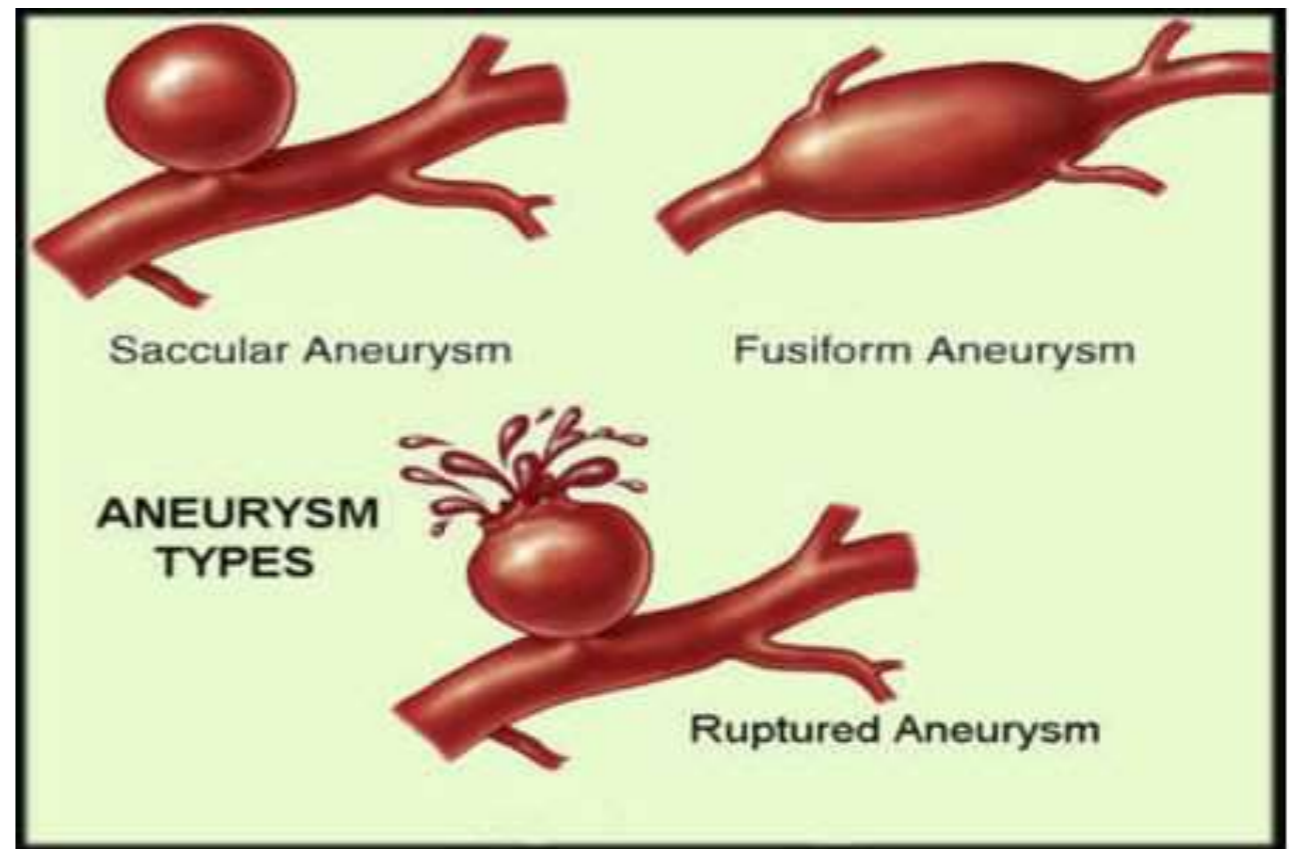


# Subarachnoid Hemorrhage

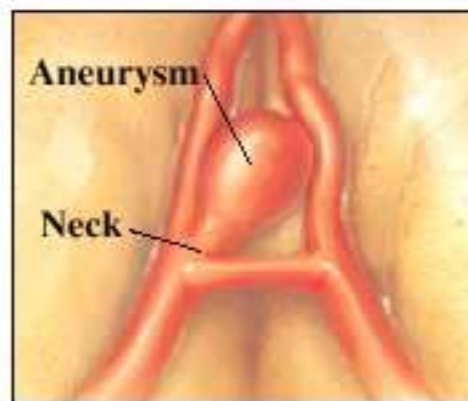


**\* Restricted use. PEIR; University of Alabama at Birmingham, Department of Pathology**

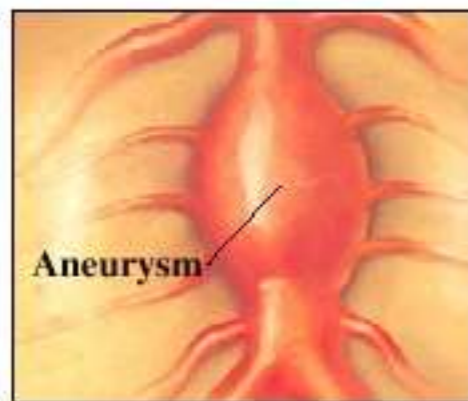
# Subarachnoid haemorrhage



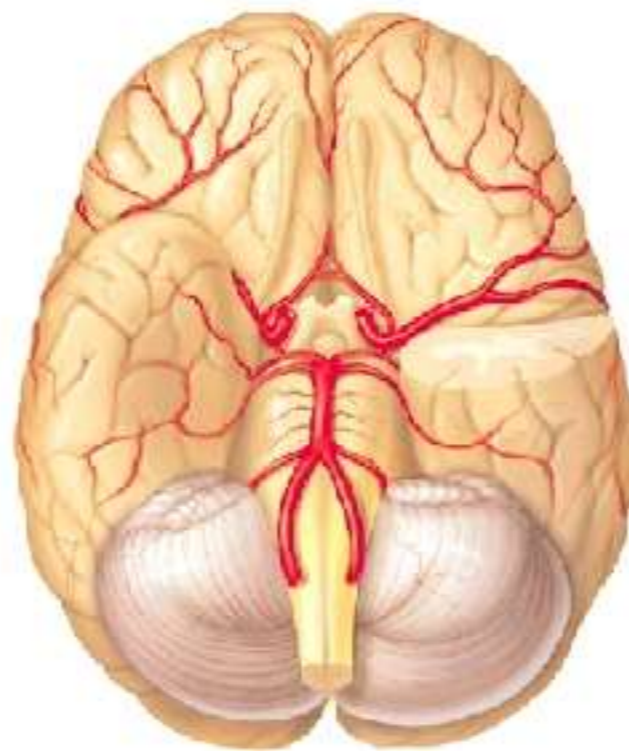




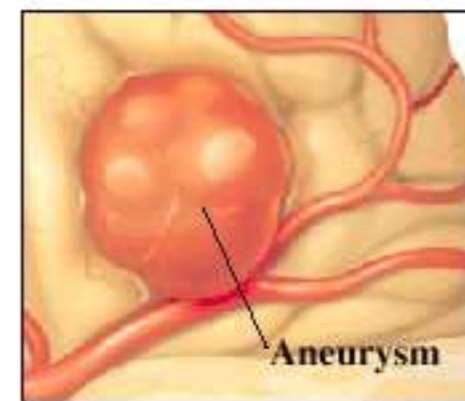
A **saccular (berry) aneurysm** bulges from one side of an artery. A neck leads to it.



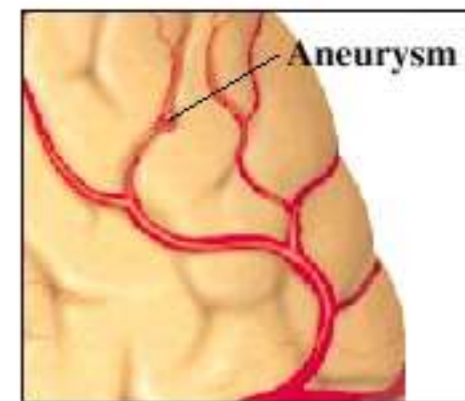
A **fusiform aneurysm** bulges from all sides of an artery. It rarely has a neck.



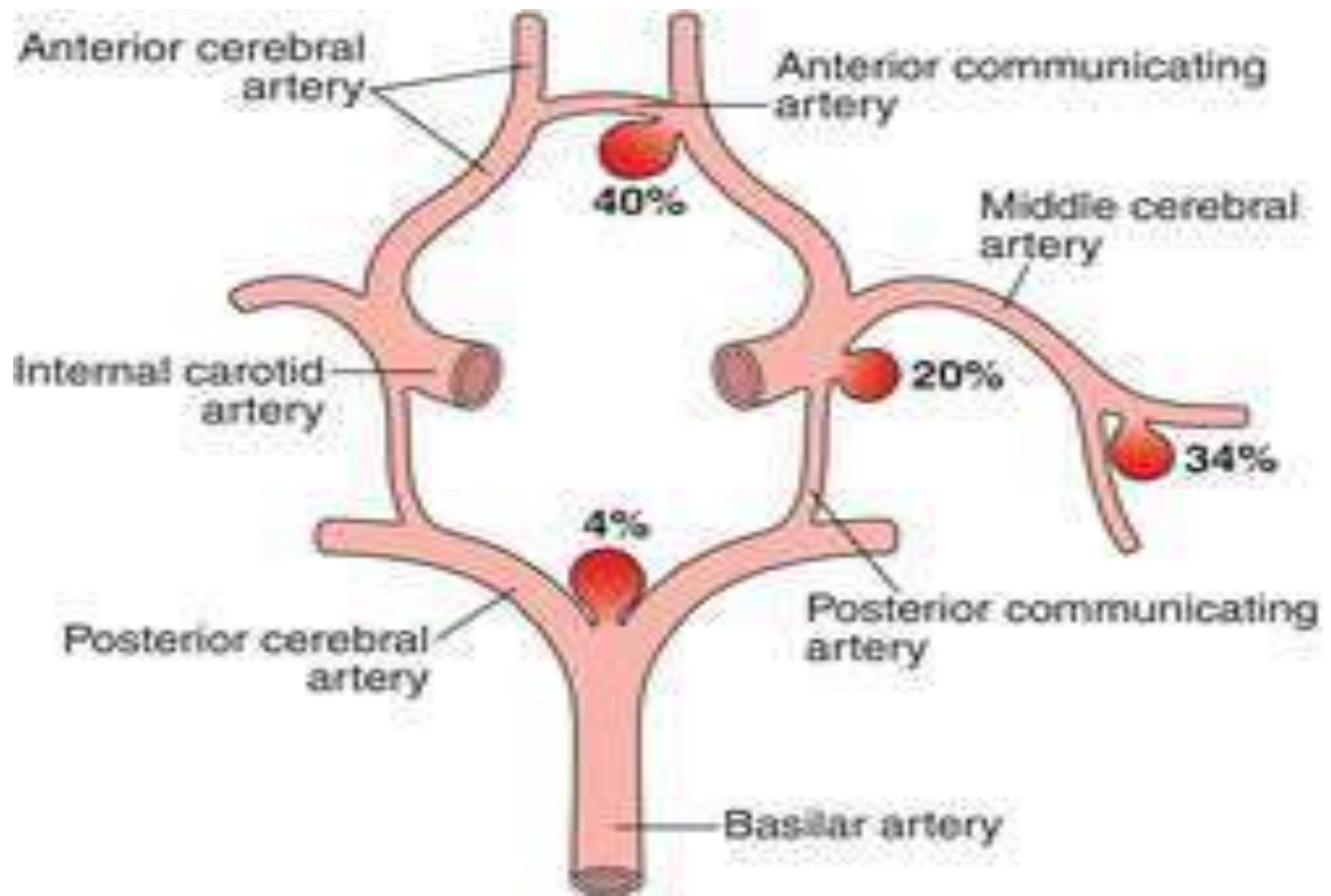
Using this picture, the surgeon may mark the site of the aneurysm.



A **giant aneurysm** can involve more than one artery. It is over 2.5 centimeters (cm) wide.



A **mycotic aneurysm** is caused by an infected artery wall. This type of aneurysm is fairly rare.



# Traumatic haemorrhage

