

My mind-blowing Case

Dimitrova M. (2nd-year resident)
Manolova D. (radiologist)
University Hospital "St. George"
Plovdiv



Basic information about the patient

History:

A-84-year-old man

diarrhea and vomiting since 5-6 days

Attempted suicide by a gunshot the same day

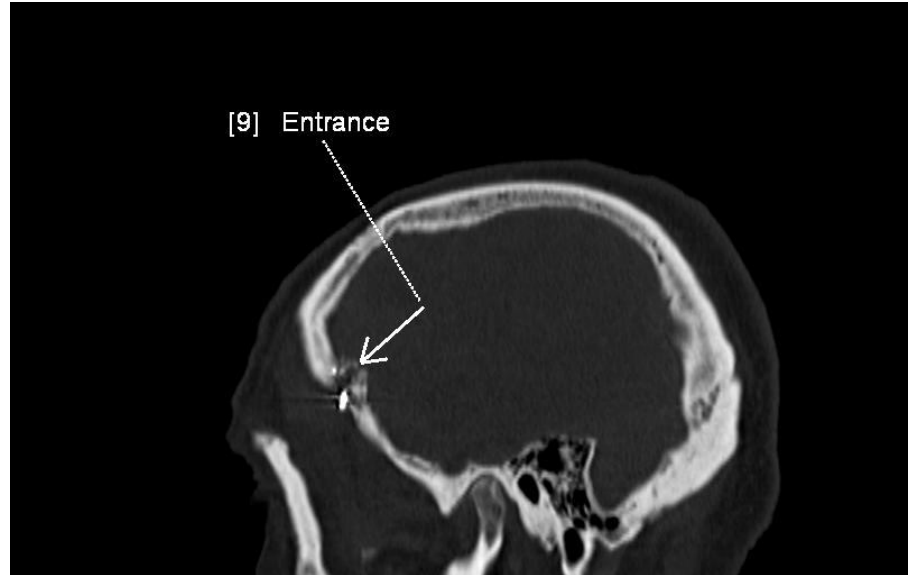
After that the patient is transported to the Emergency and is directed to the Radiology department for a brain CT



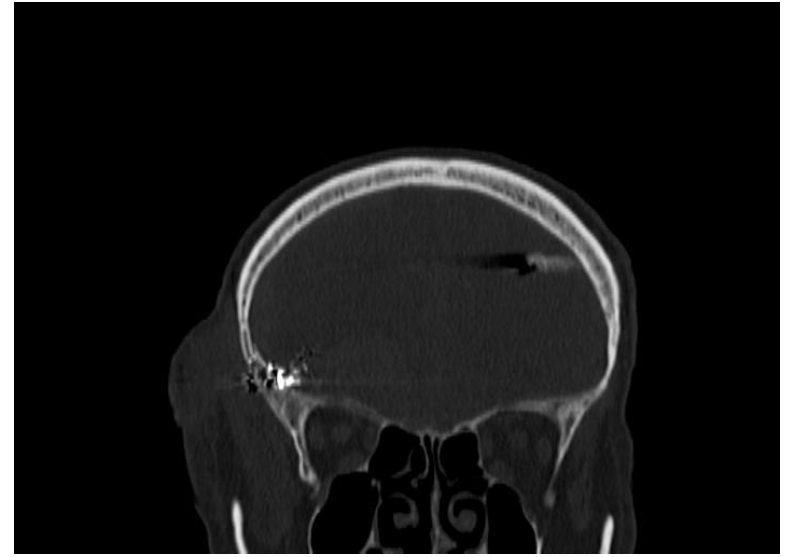
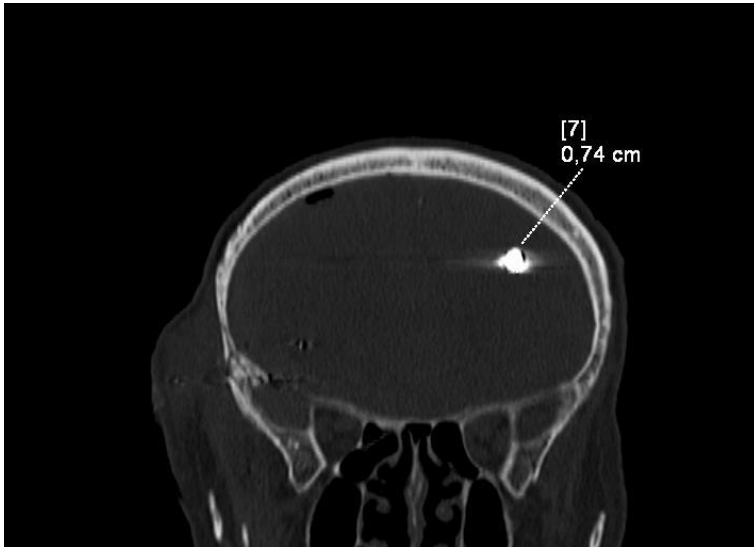
FINDINGS

Bone window

Entry point of the projectile on the right with a **compound fracture** of the greater wing of sphenoid with **multiple osseous particles**



Trajectory of the projectile

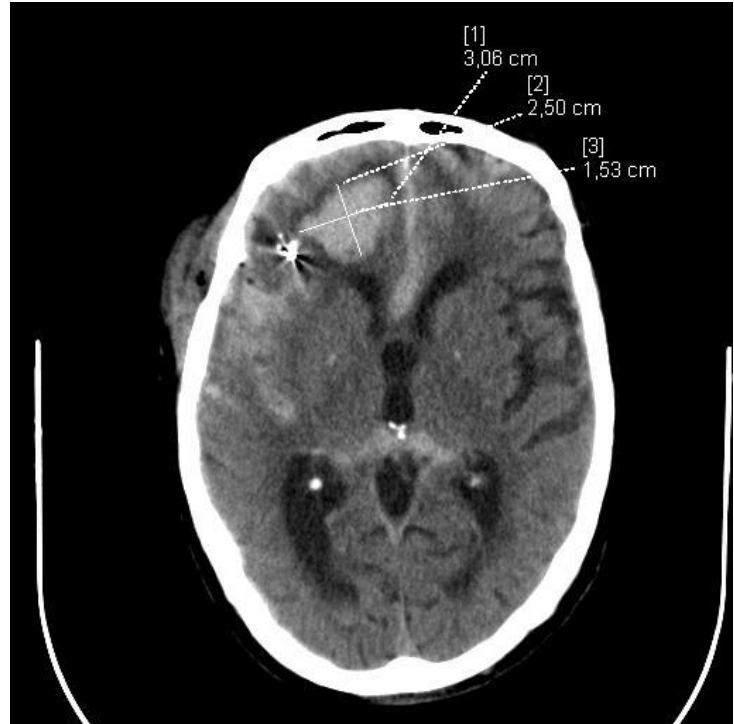


High density metallic particles can be traced down along the path of the projectile across the frontal lobe up to the very projectile high in the parietal lobe on the left.

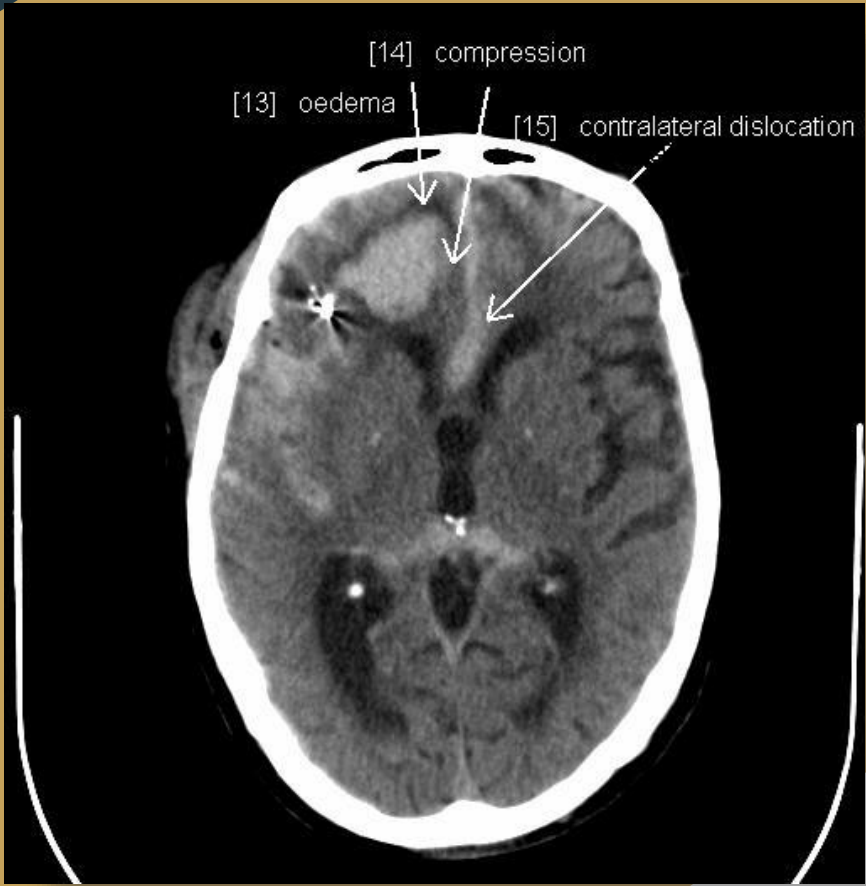
Brain parenchyma window

Haematoma with perifocal oedema in the right frontal lobe along the path of the projectile.

Size of haematoma: 30/25/15mm



There is also a **pneumocephalus** and a **compression** of the frontal part of the interhemispheric fissure with a **contralateral dislocation**.

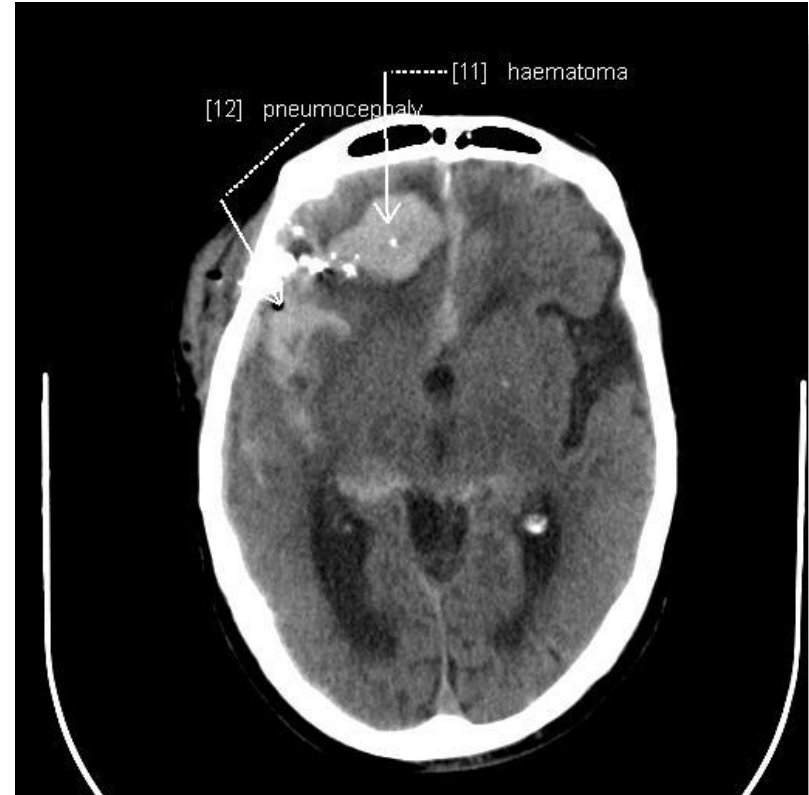
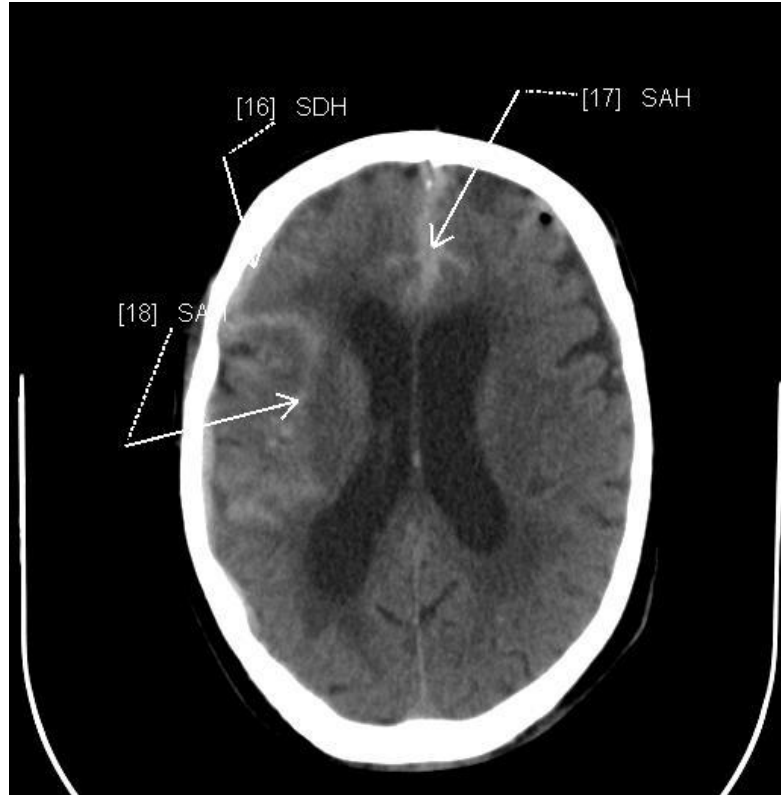


More findings

Massive and localised **SAH** in temporal and parietal sulci on the right, in the right Sylvian fissure, in the interhemispheric fissure, as well as in the basal cisterns (perimesencephalic cistern on the right and prepontine cistern).

There is also a subdural haematoma on the right.

The ventricles are enlarged, dissymmetrical and centrally located.





CONCLUSIONS

This case is:

A typical example of a gunshot injury to the brain on CT.

There are always pneumocephalus and compound fractures of bones at the entry and exit points, as well as brain haematoma along the way of the bullet.

At the side of entrance the small osseous particles from the fractured bones are displaced inside the brain tissue.

The projectile normally produces big artifacts and the interpretation of the surrounding brain parenchyma may be straitened.

Thank you for your attention!

