

Subdural Hematoma (SDH) without Subarachnoid Hemorrhage (SAH) Secondary to Posterior Communicating Artery Aneurysm Rupture: A Case Report

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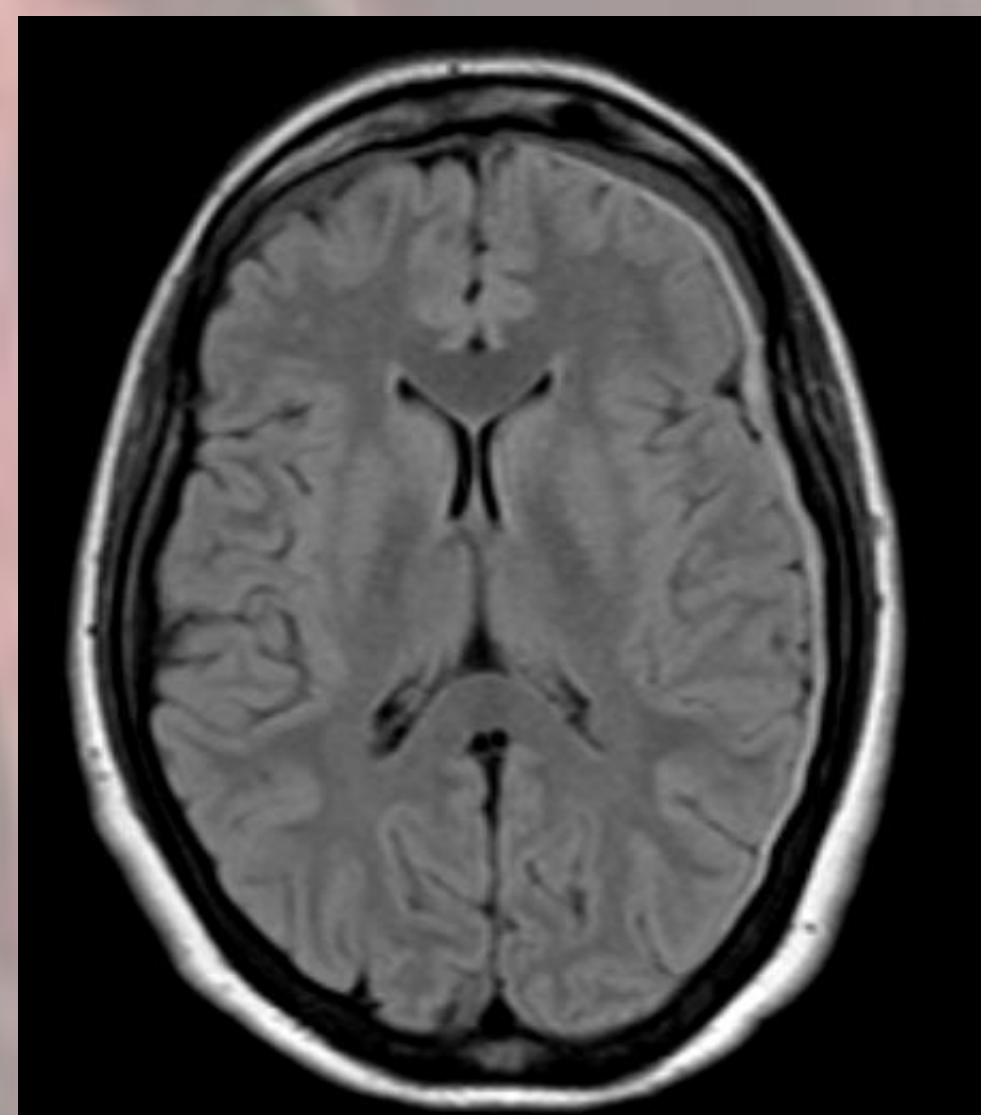
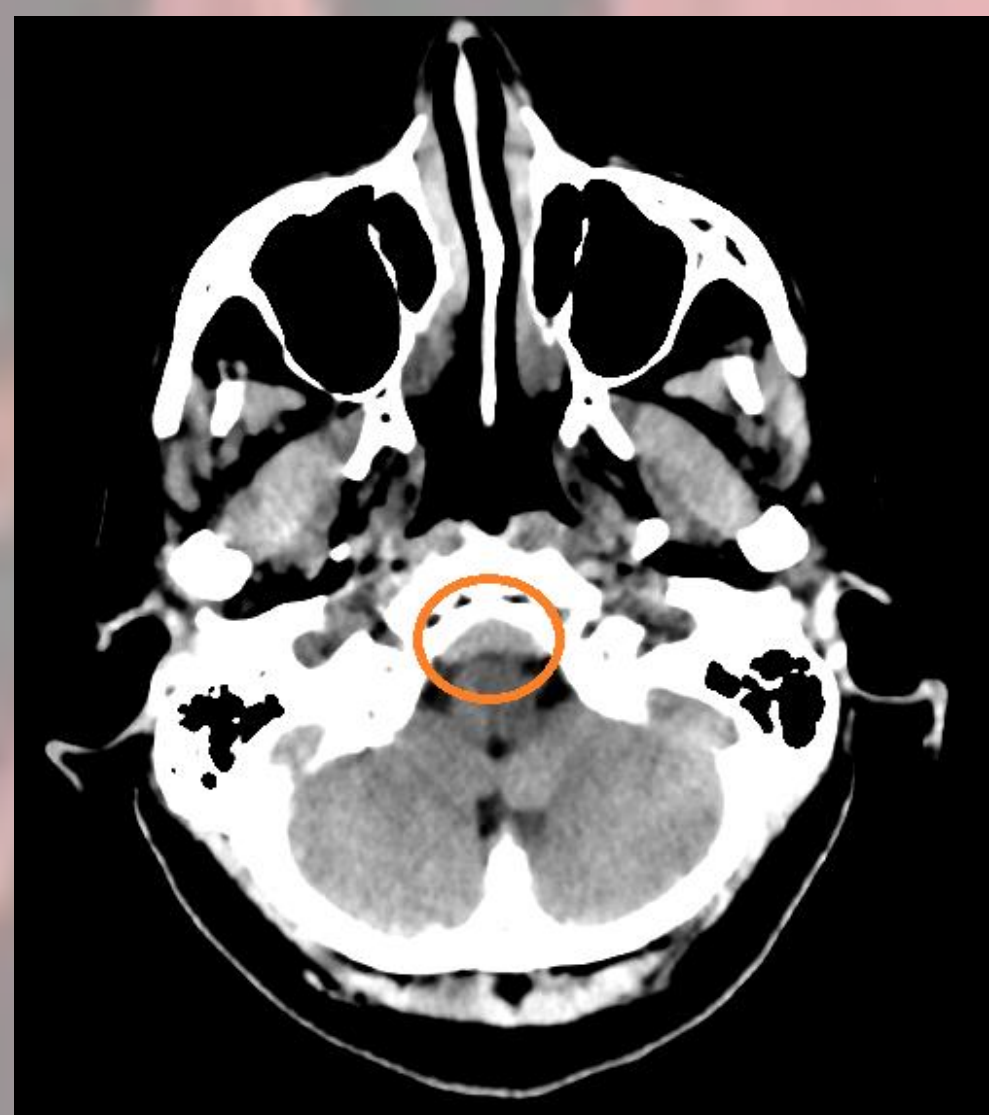
Background

Acute subdural hematomas (aSDHs) are frequently related to head trauma and are typically caused by disruption of superficial cerebral or cortical bridging veins. A case of spontaneous acute subdural hematoma over the left cerebral hemisphere secondary to rupture of a posterior communicating artery aneurysm and without SAH is reported.

Case report

A 39 year-old female patient presented to the Emergency Room with subacute onset of a left eye ptosis in the last two days followed by acute onset diplopia and severe headache with vomiting.

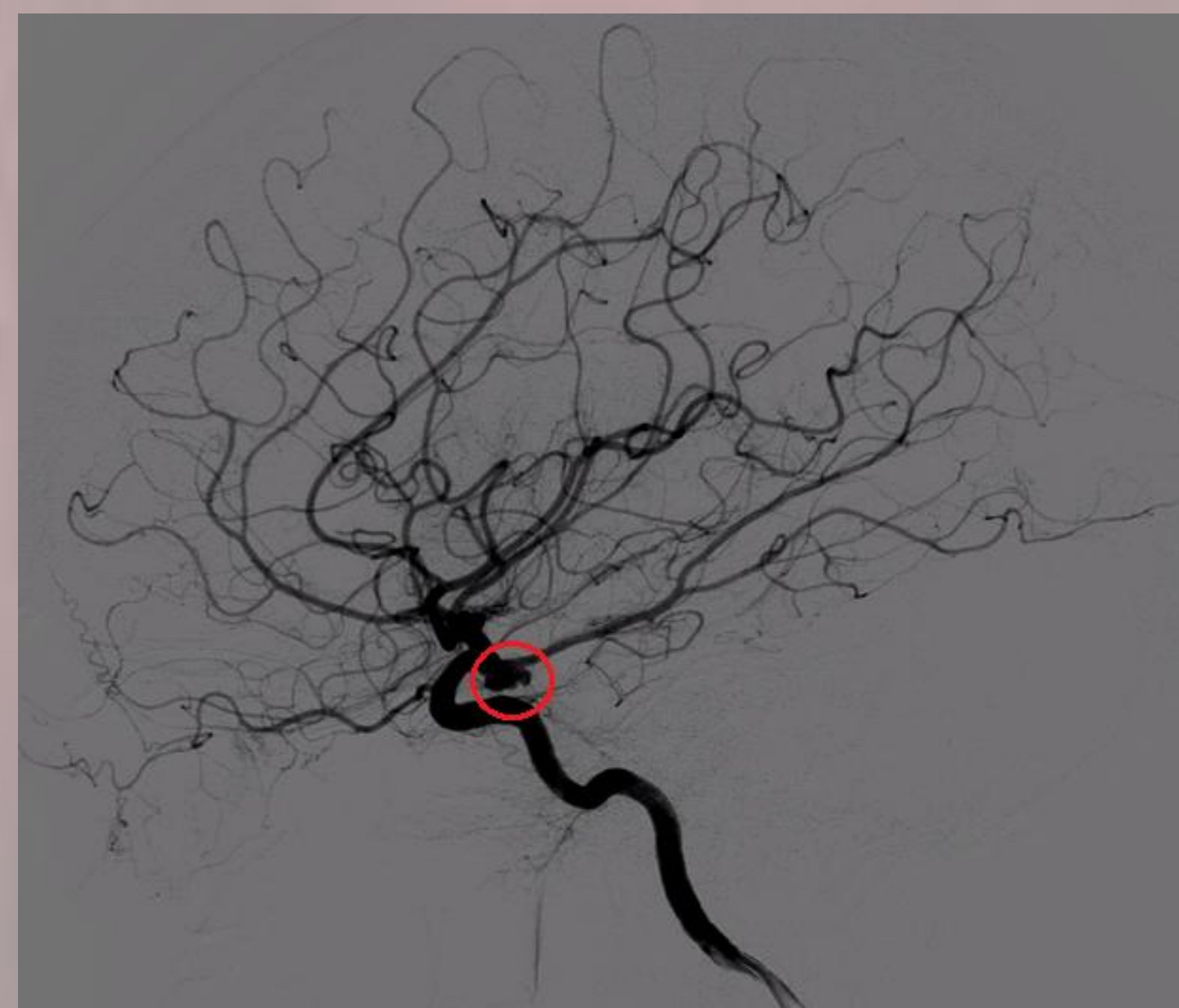
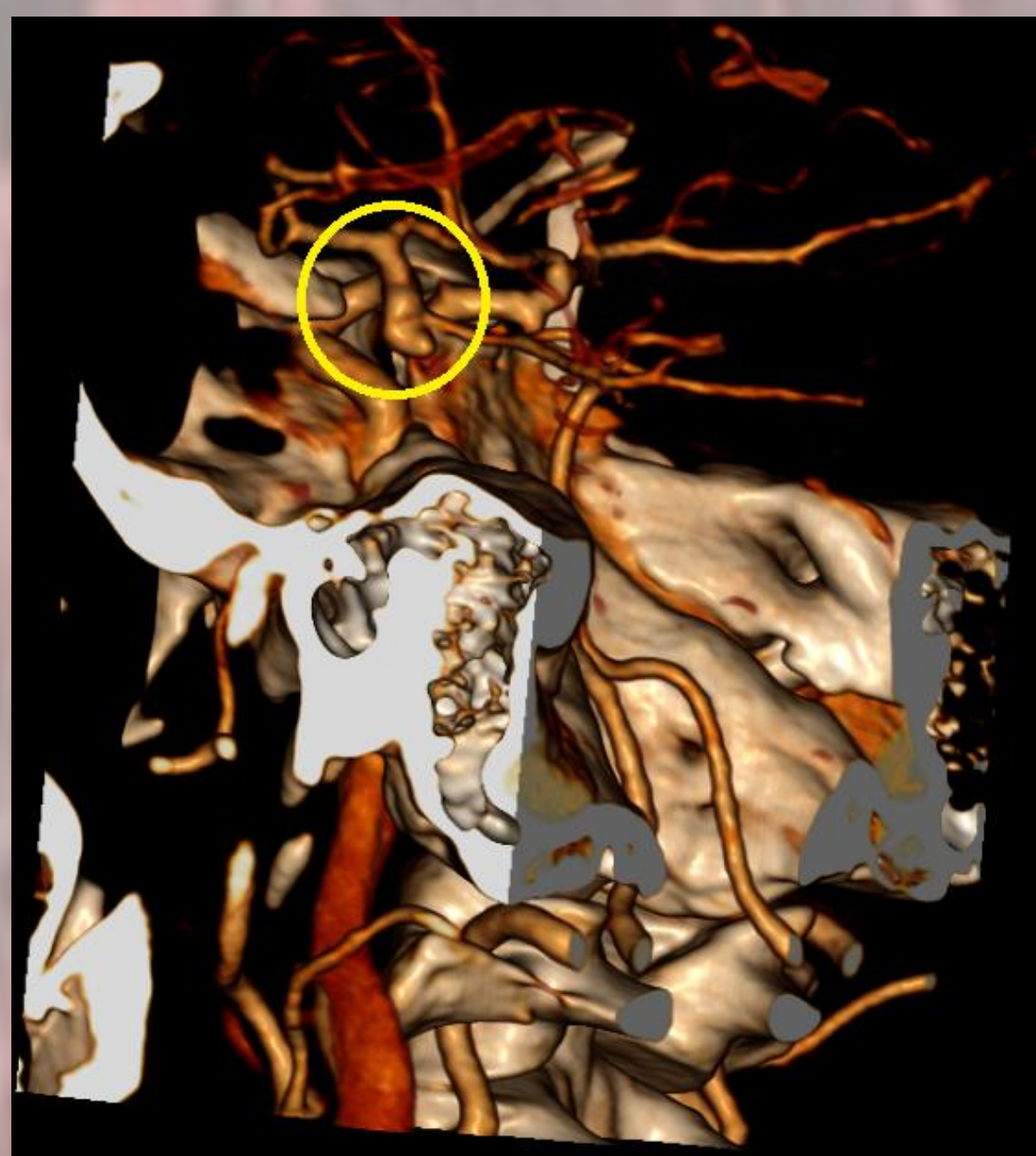
No history of head trauma was reported. She had a complete left third cranial nerve palsy.



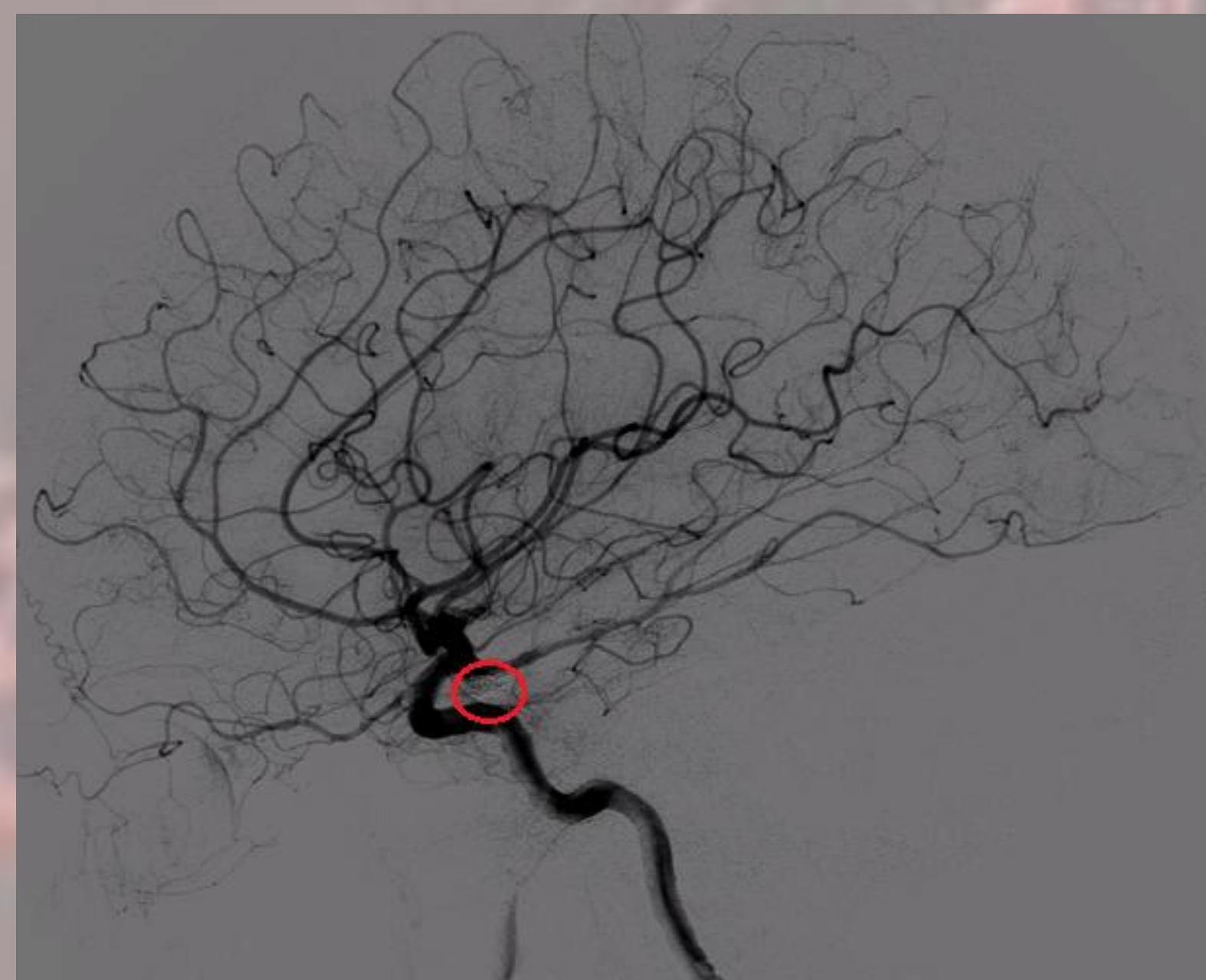
Non contrast CT and MRI were performed: small linear hyperdensity located in the subdural space along the left hemispherical convexity accompanied by a small hyperdensity along the clivus were detected. Overall findings were suspected for a subacute subdural hemorrhage (SDH)

Contrast angio-CT:

little saccular aneurysm (2-3 mm) of the left ICA, next to the origin of the posterior communicating artery (PCoA).



Digital subtraction angiography (DSA). No other vascular malformations were detected and intravascular closing of the aneurysm was performed.



The third left cranial nerve palsy completely healed and the patient was discharged without neurological deficits after 14 days.

Discussion

Arteriovenous malformations, cocaine abuse and coagulopathy are the main causes of uncommon spontaneous aSDH. SDH from the rupture of an intracranial aneurysm and without radiographic evidence of a concomitant subarachnoid haemorrhage is even rarer; we suppose that a carotid artery aneurysm located in the subdural space may have directly caused the aSDH in our case

Conclusions

High level of suspicion for a bleeding of arterial origin should be maintained in all cases of aSDH without an history of trauma.

References

1. Mansour O, Hassen T, Fathy S. Acute Aneurismal Bilateral Subdural Haematoma without Subarachnoid Haemorrhage: A Case Report and Review of the Literature. Case Rep Neurol Med. Epub 2014 Jun 18.
2. Gong J, Sun H, Shi XY, Liu WX, Shen Z. Pure subdural haematoma caused by rupture of middle cerebral artery aneurysm: Case report and literature review. J Int Med Res. 2014 Jun;42(3):870-8