# Traumatic internal carotid artery occlusion accompanied with contralateral internal carotid artery dissection in Traumatic Brain Injury : A case report

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## Introduction

Traumatic cerebral vascular injury is rare but cause poor outcome or death.

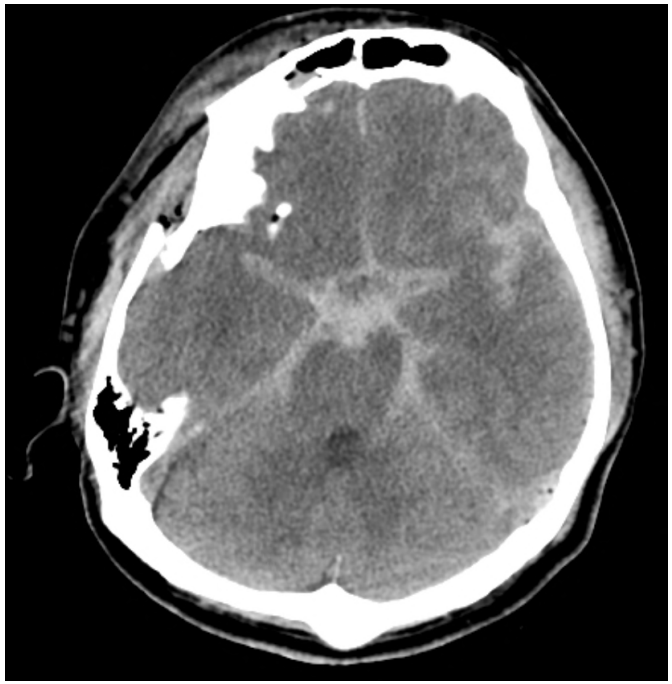
This is usually associated with blunt or penetrating head injuries.

Dissection may lead to stenosis or occlusion of the vessel, possibly with a pseudoaneurysm.

We experienced both occlusion and dissection in one TBI patient.

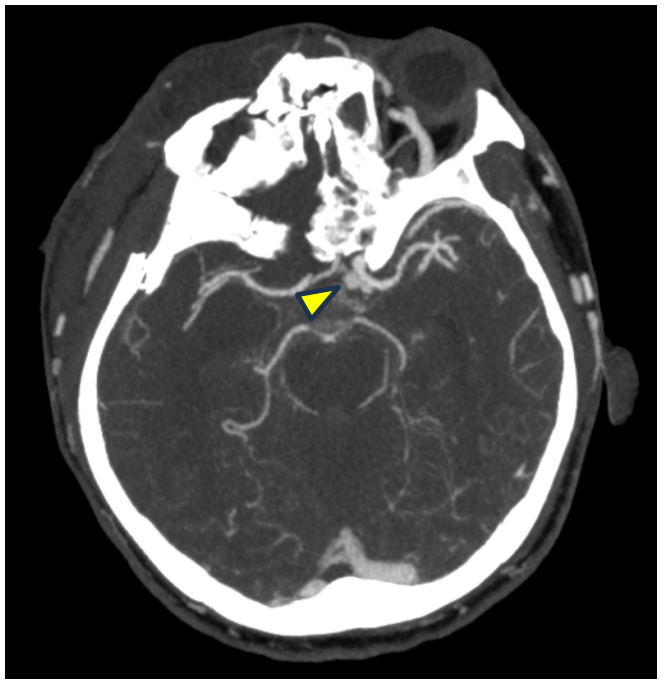
# Case Report

A 45 year-old male patient was transferred to the trauma center after a passerby found him lying on a road suspected hit-and-run. His initial mental status was coma and GCS was 3.



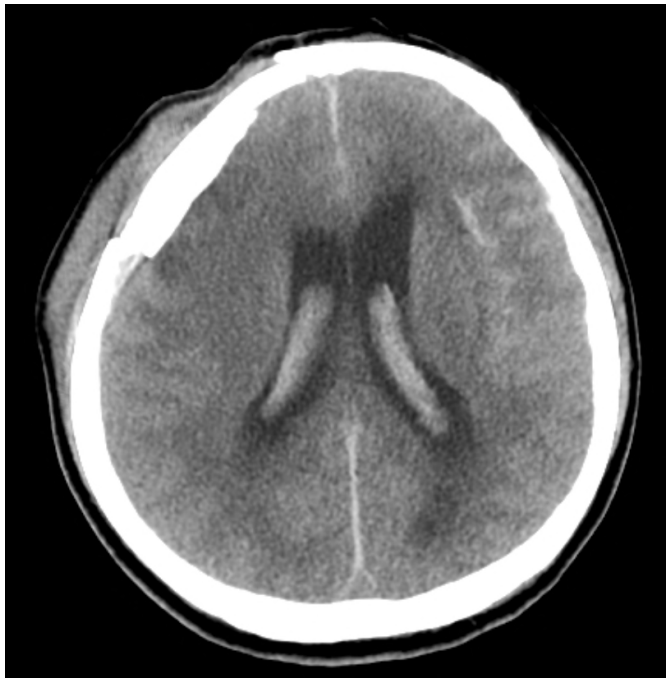
**Initial Brain CT**

Depressed Skull fracture Rt Frontal base
Diffuse SAH



**Brain Angio CT**

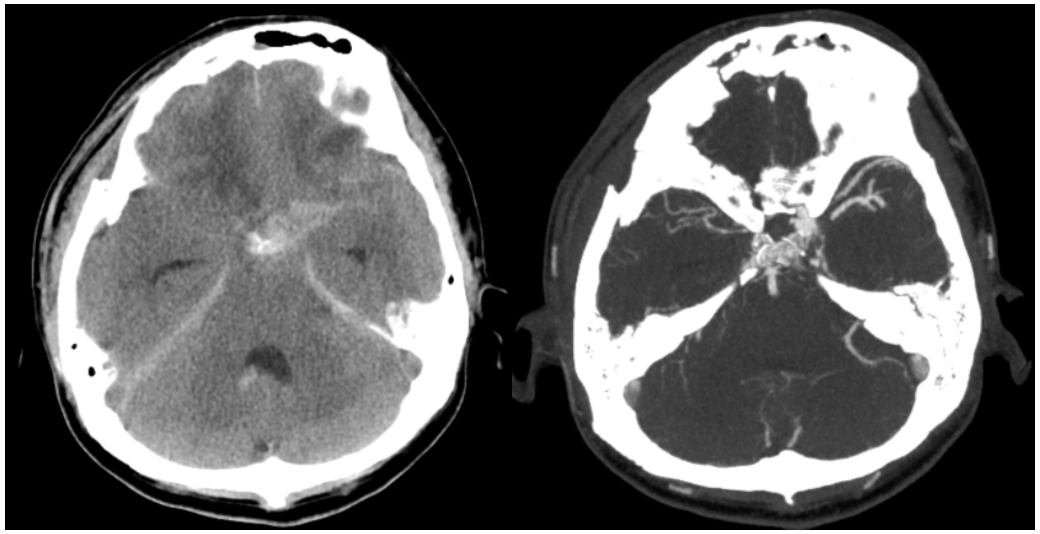
Rt ICA occlusion
Lt ICA Traumatic Pseudo aneurysm
(Yellow arrow head)



**24 hr Brain CT**

Acute Hydrocephalus

# Case Report

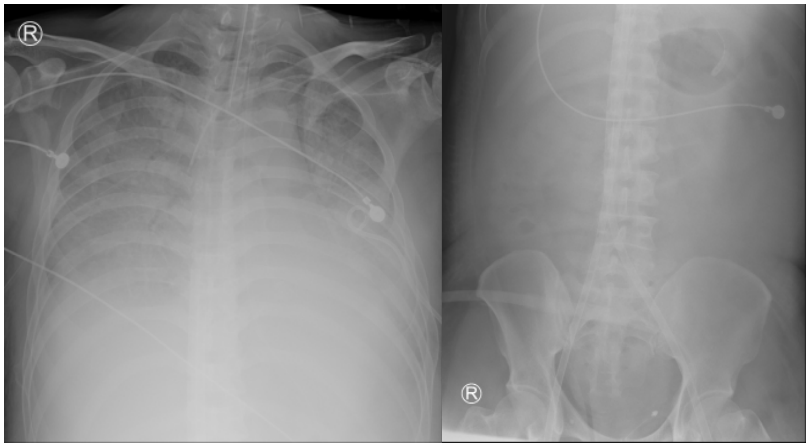


**HOD 7 Brain CT**

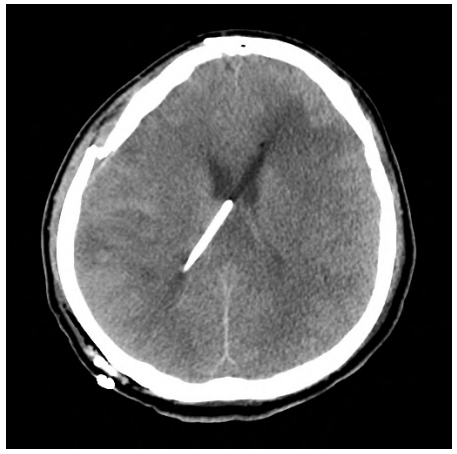
Decreased SAH. Increased Pseudoaneurysm


**6-vessel angiography**

Rt ICA total occlusion, Pseudoaneurysm c vasospasm



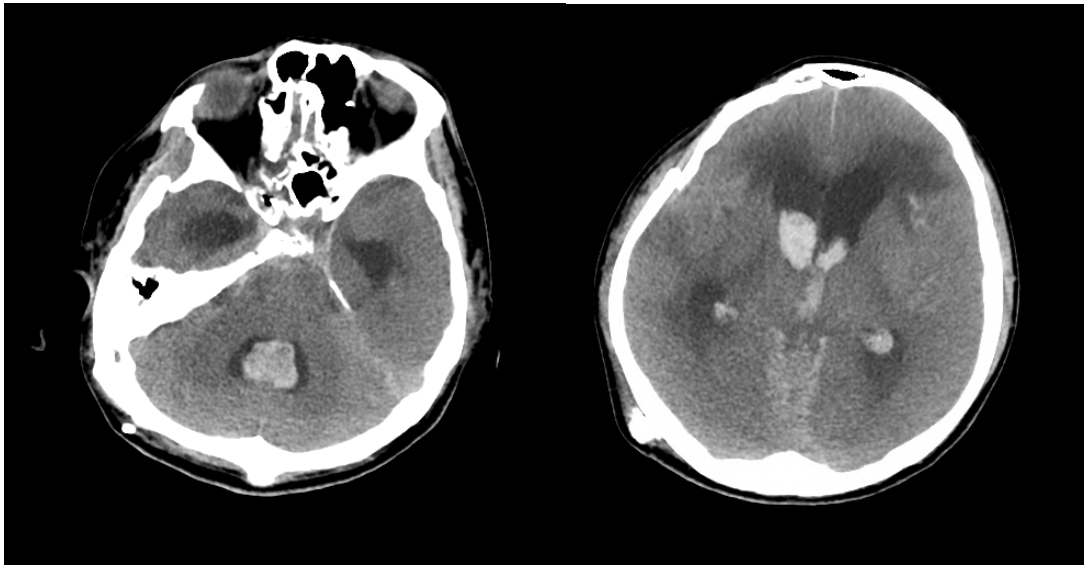
HOD 21 ARDS -> ECMO applied



HOD 44 V-P shunt

# Results

- HOD 74 Eye opening, Self movement (+)
- HOD 75 Rebleeding, COMA
- HOD 102 Expired



# Conclusion

- In severe TBI patients, cerebral vascular injury should be considered. This case demonstrates the difficulty of diagnosis and treatment of both artery occlusion and dissection in one patients, contralateral location. Treatment for both lesions will be challenging for neurosurgeons.