

Loss of consciousness

see also [Syncope](#).

Loss of [consciousness](#) (LOC) is a common presenting symptom of [subarachnoid hemorrhage](#) (SAH) that is presumed to result from transient intracranial circulatory arrest.

LOC of at ictus of SAH is associated with higher rate of unfavorable functional outcomes but not mortality, DCI or rebleed in good-grade SAH patients. Future studies should further investigate the putative mechanisms by which LOC mediates early brain injury in SAH ¹⁾.

Brain-tissue shifts associated with [drowsiness](#), [stupor](#), and [coma](#) were studied by clinical examination and CT scanning in 24 patients with acute unilateral cerebral masses. Studies were performed soon after the appearance of the mass to detect the earliest CT changes associated with depression or [loss of consciousness](#). Contrary to traditional concepts, early depression of the level of alertness corresponded to distortion of the brain by horizontal displacement rather than [transtentorial herniation](#) with brain-stem compression. Horizontal displacement of the pineal body of 0 to 3 mm from the midline was associated with alertness, 3 to 4 mm with drowsiness, 6 to 8.5 mm with stupor, and 8 to 13 mm with coma. Moreover, drowsy or stuporous patients and some comatose patients had widened cisterns between the tentorial edge and the midbrain on the side of the mass, suggesting that the space was not filled by herniated medial temporal lobe. Downward displacement of the pineal body, indicating central transtentorial herniation, did not occur. Compression of one hemisphere by the other anteriorly (transfalcial herniation) was inconsistently related to alertness, though very large anterior displacements may have caused stupor in some patients. Current concepts of the pathoanatomical nature of depressed consciousness, based on pathological material obtained well after clinical examinations, may require revision, because they do not reflect early brain-tissue distortions ²⁾.

¹⁾

Wang J, Alotaibi NM, Akbar MA, Ayling OG, Ibrahim GM, Macdonald RL; SAHIT collaborators.. Loss of Consciousness at Onset of Aneurysmal Subarachnoid Hemorrhage is Associated with Functional Outcomes in Good-Grade Patients. World Neurosurg. 2016 Nov 3. pii: S1878-8750(16)31088-9. doi: 10.1016/j.wneu.2016.10.099. [Epub ahead of print] PubMed PMID: 27818312.

²⁾

Ropper AH. Lateral displacement of the brain and level of consciousness in patients with an acute hemispherical mass. N Engl J Med. 1986 Apr 10;314(15):953-8. PubMed PMID: 3960059.

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