Aspirin

- Aspirin Use Is Protective Against Gastric Cancer in a High-Incidence Region of Central America
- Safety and Effectiveness of Flow-Diversion for Flow-Related Aneurysms in Patients With Brain Arteriovenous Malformations: A Case Series and Review of Literature
- Mortality Risk Analysis of Combination Antiplatelet Therapy in Patients with Ischemic Stroke and Acute Kidney Injury: A Retrospective Cohort Analysis of the MIMIC-IV Database
- Submucosal Esophageal Hematoma: A Rare Hemorrhagic Complication Following Neuroendovascular Therapy
- Middle Meningeal Artery Embolization Does Not Confer Protection against Symptomatic Recurrence in Patients with Early Antithrombotic Therapy Following Surgery for Chronic Subdural Hematomas
- Safety of Ticagrelor Use in Elective Endovascular Treatment of Unruptured Intracranial Aneurysms
- The effect of aspirin on aneurysm wall enhancement: A study in rabbits and humans
- Pituitary apoplexy in a patient on antiplatelet therapy: A case report

Aspirin irreversibly inhibits cyclooxygenase, preventing synthesis of vascular prostacyclin (a vasodilator and platelet inhibitor) and platelet thromboxane A2 (a vasoconstrictor and platelet activator). Platelets, lacking cellular organelles, cannot resynthesize cyclooxygenase, whereas the vascular tissues do so

NB: < 1000 mg ASA per day probably does not help with high-grade stenosis where there is rapid perfusion failure or flow failure. Some (but not all) studies show less effective in women, no large study has shown that ASA prevents a second stroke in patients that have already had one.

℞: For angina, a bolus dose of 160–325 mg PO is followed by maintenance doses of 80–160 mg/d (lower doses appear to be as effective as higher doses). Optimal doses continue for cerebrovascular ischemia continues to be debated. 325 mg PO q d reduces the risk of stroke following TIA by 25–30%. Daily doses of 81 or 325 mg, when compared to higher doses, were associated with a lower rate of stroke, MI, and death (6.2% vs. 8.4%) following carotid endarterectomy.

Acetylsalicylic acid (ASA) irreversibly blocks the platelet cyclo-oxygenase enzyme system, preventing formation of thromboxane A2 and inhibiting platelet aggregation for the life of the affected platelet (approximately 10 days).

This block occurs even at the lowest therapeutic/prophylactic ASA dose usually prescribed, 81 mg/day (10%/24 h). Because the ASA effect on individual platelets is complete, it cannot be reversed.

Based upon the customary rate of platelet production, approximately 5–6 days are required after cessation of ASA to replace approximately 50% of the circulating platelets

Aspirin is increasingly prescribed for its antithrombotic properties and usually recommended indefinitely following stent placement to prevent stent thrombosis.

Perioperative low dose use was not associated with increased risk of perioperative complications [1].

Aspirin increased the risk of rehaemorrhagia after surgery of hypertensive cerebral hemorrhage (HCH) [2].

Preinjury use of warfarin, but not antiplatelet medications, influences survival and need for neurosurgical intervention in elderly TBI patients with intracranial hemorrhage; hemorrhage progression and morbidity are not affected. The importance of antithrombotic therapy may lie in its impact on initial injury severity [3].

Periprocedural intravenous aspirin and unfractionated heparin during Endovascular treatment for acute ischemic stroke are both associated with an increased risk of symptomatic intracranial hemorrhage without evidence for a beneficial effect on functional outcome [4].

Counteracting aspirin

Various medicamentous methods of counteracting aspirin-induced platelet dysfunction and excessive bleeding in this context are revaluated. In this context, platelet infusion and the administration of Desmopressin seems to be an effective and accepted as well as frequently adopted measure to antagonize the aspirin effect on platelet function during various major surgical procedures [5]

Intracranial surgery

see Aspirin in intracranial surgery.

Aspirin for Aneurysm

Aspirin for Aneurysm.

Timing of Low-Dose Aspirin Discontinuation

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1)
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