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Low-Dose Prasugrel in Treatment of Cerebral Aneurysms

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Recently interests are on the rise on the prophylactic antiplatelet medication for patients undergoing interventional treatment for unruptured intracranial aneurysms. The article titled *'Low dose prasugrel in patients with resistance to clopidogrel in the treatment of cerebral aneurysm'* is one of them.[1] Prasugrel is one of new generation thienopyridines and is oxidized to its active metabolite in a single cytochrome P450-dependent step without a dead-end inactive pathway. The occasional poor response to clopidogrel gives us concern for the increased risk of procedural complications, and the complicated individual tailoring sometimes confuses medical personnel in our daily practice. The regimen of so called 'low-dose prasugrel' consists of a loading dose of 20 mg, corresponding to one-third dose of TRITON-TIMI 38 trial, on the day before treatment, and a maintenance dose of 5 mg, half a dose of the trial. This regimen produced superior antiplatelet effect in a laboratory assay using the VerifyNow system in terms of both the P2Y12 reaction unit values (prasugrel group vs. clopidogrel group, 242.7 vs. 125.7; P<0.001) and percentage inhibition values (22.1% vs. 60.2%) in a previous study.[2] The laboratory superiority was extended to clinical one in comparison with clopidogrel-based tailored medication as the control.[3] Furthermore, the comparison in patients undergoing stent-assisted procedures demonstrated the superiority of low-dose prasugrel regimen.[4] However, there is some concern over the usage of prasugrel in elderly patients (>75 years old) and light-weighted ones (<60 kg), which needs to be addressed in another study. Currently authors recommend a short-term (i.e., 3 months) use of prasugrel in patient undergoing stent-assisted procedures and then switch to long-term use of aspirin.[4]

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