Sarpogrelate- another new antiplatelet agent?

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Why is this study important?

Aspirin has long been the recommended treatment for all atherothrombotic vascular diseases. The study S-ACCESS looked at the antiplatelet agent sarpogrelate, 2 (dimethylamino) 1 [[o(mmethoxyphenethyl)phenoxy]methyl] ethyl hydrogen succinate hydrochloride, that has been used for years to treat patients with peripheral arterial disease in Japan, China, and the Republic of Korea. It works as a selective 5-hydroxytryptamine (5-HT) receptor antagonist, inhibiting responses to 5 HT mediated by 5-HT2A receptors, including platelet aggregation and vasoconstriction.

Who were the participants?

1510 patients with recent cerebral infarction (1 week to 6 months after onset) were randomly assigned to receive either sarpogrelate (100 mg TID) or aspirin (81 mg/d). The study was conducted in 113 centres in Japan. Mean follow-up period was 1.59 years. The primary efficacy end point was recurrence of cerebral infarction. Clusters of serious vascular events (stroke, acute coronary syndrome, or vascular event-related death) were selected as secondary end points. The aim of the primary efficacy analysis was to demonstrate the noninferiority of sarpogrelate with respect to aspirin.

What were the outcomes?

Cerebral infarction recurred in 72 patients (6.09%/y) in the sarpogrelate group and in 58 (4.86%/y) in the aspirin group (hazard ratio=1.25; 95% CI, 0.89 to 1.77; P=0.19). A serious vascular event occurred in 90 (7.61%/y) and in 85 (7.12%/y) patients, respectively (hazard ratio=1.07; 95% CI, 0.80 to 1.44; P=0.65). The overall incidences of bleeding events were 89 (11.9%) and 131 (17.3%), respectively (P<0.01).

What were the conclusions?

Sarpogrelate was not noninferior to aspirin for prevention of recurrence of cerebral infarction. Although bleeding events were significantly fewer with sarpogrelate than aspirin.

What does this mean for clinicians practicing in Pakistan?

This trial (S-ACCESS) is more important to our population because it describes a regional response to the drug and could be more generalizable to our population. Although it failed to prove the non -inferiority of Sarpogrelate to Aspirin regarding cerebrovascular accidents, it did show similar effectiveness of Sarpogrelate and Aspirin in preventing other serious vascular events and acute coronary syndromes, with fewer bleeding episodes ,probably because the mechanism of action of the drug is different. It is important in that it describes how alternate mechanism of action medication could prevent side effects in populations vulnerable to ICH.

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Recommended Reading

1. Shinohara Y, Nishimaru K, Sawadar T, Handa S, Hirai S, et al. Sarpogrelate-Aspirin Comparative Clinical Study for Efficacy and Safety in Secondary Prevention of Cerebral Infarction (S-ACCESS): A randomized, double-blind, aspirin-controlled trial. Stroke 2008; 39: 1827-33.
2. Antithrombotic Trialists' Collaboration. Collaborative meta-analysis of randomised trials of antiplatelet therapy for prevention of death, myocardial infarction, and stroke in high risk patients. BMJ 2002; 324: 71-86.
3. No author listed. A randomized, blinded trial of clopidogrel versus aspirin in patients at risk of ischemic events (CAPRIE): CAPRIE Steering Committee. Lancet 1996; 348: 1329-39.