

Stroke Prevention

Stroke-crew

Strokes often have atherosclerosis as an underlying factor, where clogged arteries in the brain prevent adequate blood flow from occurring. Cilostazol and dipyridamole can be used in combination with aspirin to prevent strokes in some patients by improving vasodilation and preventing platelet aggregation within vessels.

Coronary Stent Stenosis Prevention

Crown-heart Stent of Stone

Coronary artery disease occurs when atherosclerosis results in occlusion of the small coronary vessels in the heart, leading to myocardial ischemia. Stents can be placed which hold these vessels open, returning normal blood flow. Cilostazol and dipyridamole inhibit platelet aggregation, and so can prevent these stents from later becoming occluded and stenosed.

Cardiac Stress Testing (Dipyridamole)

Stressed Heart

Cardiac stress testing is indicated in patients where coronary artery disease is suspected, for example patients with angina. In stress testing, the patient performs an activity like jogging, while coronary blood flow is measured. Dipyridamole is a non-specific PDE inhibitor, unlike cilostazol, and so more effectively leads to increased levels of adenosine in the heart. Adenosine vasodilates healthy coronary vessels, while diseased or stenotic ones remain closed. Dipyridamole highlights this discrepancy during stress testing, allowing diseased vessels to be identified.

Side Effects

Flushing

Flashlight

Because these medications result in vasodilation, one side effect is flushing. Patients should be reminded that this side effect may occur.

Hypotension

Hippo-BP

Hypotension can result when cilostazol and dipyridamole cause excessive vasodilation, leading to a decrease in blood pressure. Therefore patients who are newly prescribed these medications or are undergoing dosage changes should have their blood pressure periodically monitored.