Safety and efficacy of Brilinta (Ticagrelor) for endovascular procedures.

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Introduction

The endovascular use of intra- and extra-cranial stents requires dual anti-platelet therapy, traditionally by Aspirin and Plavix. About one third of patients appear to be non responders to Plavix and will need alternative treatment options. Brilinta is a new reversible blocker of adenosine diphosphate (ADP) receptor of subtype P2Y12. The use of Brilinta for endovascular procedures as an alternative to Plavix has not been previously studied.

Methods

We reviewed our cerebrovascular database for all patients who were non responders to Plavix despite repeat Plavix loading dose of at least 600 mg as measured by P2Y12 levels and who were then administered Brilinta.

Results

We report the use of Brilinta in 8 patients who were none responders to Plavix according to measured P2Y12 levels. 6 patients were male, 2 female with a median age of 68 yrs (range 36-81). All patients received loading doses of at least 600 mg of Plavix and showed P2Y12 levels below 10% prior to Brilinta administration. Patients were loaded with 180mg of Brilinta and all showed an initial P2Y12 response above 90%. 7 patients underwent extracranial or intracranial stenting and one patient underwent treatment by Pipeline embolization device. No patient experienced any adverse effects in the postoperative period related to the use of Brilinta.

Conclusions

Brilinta offers a safe and effective alternative to patients who are non-responders to Plavix. All our patients showed an immediate response to Brilinta after loading dose with 180 mg resulting in P2Y12 levels above 90%. While no adverse effects were noted further studies are needed to validate the use of Brilinta for endovascular procedures.

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Learning Objectives

By the conclusion of this session, participants should be able to: 1. Describe the indication of dual anti platelet therapy 2.Management and measurements of anti platelet therapies 3. Pharmacokinetics of anti platelet therapies.