



**DISCONTINUING ANTIPLATELET THERAPY:A LIFE THREATENING THROMBOEMBOLIC EVENT :A REVIEW**

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**ABSTRACT**

The patients on anti-platelet drugs like Aspirin & Clopidogrel are often asked to stop the drug for any surgical procedures including minor dental procedures due to the fear of risk of thromboembolic events post surgery. Recent studies suggests that there is no need to discontinue the antiplatelet therapy for minor dental procedures. The individual's bleeding time, clotting time & INR is verified & the drugs are continued during surgery. Continuing the drug will increase the risk of haemorrhage and not the risk of thromboembolic events, but discontinuing or altering the drugs will lead to cerebrovascular accidents & also myocardial infarction. Drugs like Warfarin can be stopped only during primary dental procedures. Even in cases where the dentist suggests to stop the drug, it should not be stopped for than 3 days.

**KEYWORDS :**

**INTRODUCTION:**

Aspirin, a salicylate group of non-steroidal anti platelet drug . It inhibits prostaglandin synthesis by inhibiting the enzyme prostaglandin endoperoxide synthase or cyclooxygenase. Recent studies suggest it acts by acetylation of cyclooxygenase<sup>1</sup>. It is an analgesic, anti- pyretic, anti-inflammatory & also anti-thrombotic. Low dose aspirin regimens (≥30 mg/day) can suppress platelet aggregation without affecting endothelial cells. Long term use of Aspirin will lead to gastrointestinal risk and intracranial bleeding or renal toxicity are dose-related. Aspirin therapy will prevent subsequent cardiovascular diseases. Aspirin use showed reduction in re-infarction & stroke. Aspirin in males are primarily for prevention for coronary artery disease & in females for stroke. Patients with diabetes have many fold risk of cardiovascular events due to coronary thrombus formation, platelet reactivity & endothelial dysfunction. Such patients were given 650mf of Aspirin daily .Clopidogrel shows mild tolerance to Aspirin.<sup>(1)</sup> Physicians advice patient on antiplatelet drugs like Aspirin & Clopidogrel to stop their medications prior to invasive surgical procedures because of excessive & uncontrolled bleeding. Though, there is an increased risk of intra operative & post operative bleeding if aspirin is continued, there is increased risk of thromboembolic events such as cerebrovascular accidents & myocardial infarction if medication is altered or discontinued<sup>(2)</sup>.

**DISCUSSION:**

The risk of excessive bleeding makes physicians to stop low dose long term aspirin regimens before surgery, which puts the patient at a risk of adverse thrombotic events. The bleeding time & platelet count was investigated. If normal, aspirin was stopped before surgery. The patients were followed up . There was no excessive intra operative bleeding / post operative bleeding. Minor oral procedures can be carried out safely without stopping long term low dose aspirin regimen<sup>(3)</sup>.

The local haemostatic measures are sufficient to control the risk of post operative complications in both single and dual methods in invasive dental procedures<sup>(4)</sup>.

The people under Clopidogrel & Aspirin showed increased risk of post operative bleeding during dual stage therapy, but these patients under antiplatelet therapy were not significant for minor dental procedures<sup>(5)</sup>.

Whichever procedure is to be done, it is suggested to take all the local haemostatic measures with respect to conventional antiplatelet drugs, the most important is not to withdraw the drug as long as postoperative bleeding is controlled<sup>(6)</sup>.

Post operative haemorrhage was significantly higher in patients under anti-platelet drugs like Clopidogrel & Aspirin even during minor dental extractions<sup>(7)</sup>.

The risk of haemorrhage is higher when the INR value is 2.5<sup>(8)</sup>.

Except low coronary risk patients on antiplatelet drugs must continue medication throughout surgery, except when bleeding occurs in closed space<sup>(9)</sup>.

For single tooth extraction, there is no need to stop the medication like Aspirin<sup>(10)</sup>.

On examining the risks of thromboembolic complications for patients under daily Aspirin dose , a new recommendation states ,people under low dose aspirin can continue medication for invasive dental procedures<sup>(11)</sup>.

Patients who received 81mg of Acetyl salicylic acid daily can undergo dental extraction without the risks of haemorrhage<sup>(12)</sup>.

A significant proportion of respondents fail to check warfarinised patient's INR prior to invasive dental procedures. New suggestions states a contrast to stopping anti-platelet drugs<sup>[13]</sup>.

Current suggestions & consensus says there is no need for discontinuation of antiplatelet therapy<sup>[14]</sup>.

In patients undergoing non-cardiac surgery at high risk, aspirin to be given throughout the surgery will reduce the risk without increasing bleeding complications<sup>[15]</sup>.

Aspirin & Clopidogrel like antiplatelet drugs can be continued safely during surgical procedures. Anticoagulation with Warfarin can be continued only with primary dental care procedures<sup>[16]</sup>.

There is no need to discontinue antiplatelet therapy for any minor dental procedures like excision or extraction and if the dentist suggests to discontinue, the drug has to be stopped for 3 days<sup>[17]</sup>.

Continuing the antiplatelet drugs like Aspirin will not increase the risk of thromboembolic events but will increase the risk of haemorrhage. Discontinuing the drug will increase the risk of thromboembolic events but decrease the risk of haemorrhage<sup>[18]</sup>.

For minor dental surgical procedures, there is no need to stop or alter anticoagulation / antiplatelet therapy. Dentists should be aware of their patient's medical condition & have the knowledge to provide optimal care<sup>[19]</sup>.

Dental extractions can be performed safely while continuing to receive combined anti coagulant aspirin therapy<sup>[20]</sup>.

## CONCLUSION:

Extraction is the most common procedures performed in oral surgery. Surgical procedures performed on the patients is based on sound scientific knowledge and current recommendations. Based on the review of literature, current recommendations and consensus are in favour of not stopping antiplatelet dose of aspirin before tooth extraction.

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