



## Clinical Perspective

# MANAGEMENT OF CORONARY ARTERY DISEASE IN PATIENTS WITH THROMBOCYTOPENIA

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The prevalence of coronary artery disease is soaring in the present era. Patients with ischemic heart disease may be divided into stable coronary artery disease or acute coronary syndrome.<sup>1</sup>

A common clinical issue that needs to be addressed is presence of thrombocytopenia in patients with ischemic heart disease. Thrombocytopenia may be due to any chronic medical illness like idiopathic thrombocytopenia, thrombotic thrombocytopenic purpura, heparin induced or secondary to other drugs and chronic liver disease. Thrombocytopenia is present in 5% of ACS patients while incident thrombocytopenia is estimated as 13%.<sup>2</sup>

Thrombocytopenia can be defined as a platelet count less than  $150 \times 10^9 /L$ . It is classified into mild, moderate and severe varieties.

There are some general measures or precautions to reduce the chance of bleeding in patients with thrombocytopenia.

The patients who are not undergoing coronary intervention and has platelet count between  $50-100 \times 10^9/L$  without active bleed, clopidogrel monotherapy is recommended. This is based on CAPRIE trial. In patients with platelet count less than  $50 \times 10^9/L$  with active bleed all antiplatelets should be stopped and coronary intervention should be deferred.

In patients with **ACS** and thrombocytopenia (i.e. platelet counts between  $50-100 \times 10^9/L$ ) who are planned for PCI, latest generation drug eluting stents are recommended followed by dual antiplatelet therapy for one month and then antiplatelet monotherapy afterwards.<sup>3</sup>

**Table 1: Varieties of thrombocytopenia**

Classification	Platelet count
Mild	$<150 \times 10^9/L$ but $>100 \times 10^9/L$
Moderate	$<100 \times 10^9/L$ but $>50 \times 10^9/L$
Severe	$<50 \times 10^9/L$

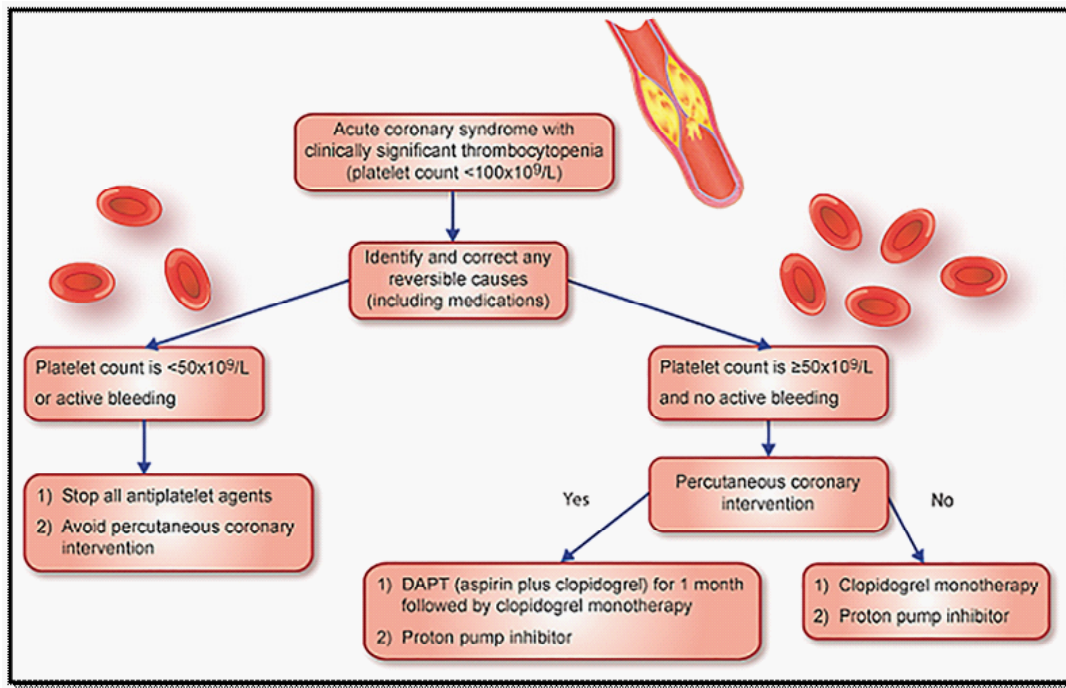
**Table 2: Strategies to reduce bleeding complications in thrombocytopenic patients**

Precautions	
1	Use low dose of aspirin
2	Dual antiplatelet therapy should be avoid in patients on anti coagulant
3	Use of NSAIDs should be avoided
4	Avoid glycoprotein IIb/IIIa inhibitors
5	Use proton pump inhibitors unless contraindicated
6	In patients undergoing PCI
	Radial approach is preferred
	Dual antiplatelet should be restricted to one month
	Latest generation drug eluting stents should be used

In patients with **stable coronary artery disease**, it is recommended that patients with platelet counts less than  $50 \times 10^9/L$  should not undergo coronary intervention. In thrombocytopenic patients with platelet counts between  $50-100 \times 10^9/L$ , clopidogrel mono therapy is recommended. If the patient is symptomatic despite three anti angina medications at maximum doses, PCI may be considered with latest generation drug eluting stents and dual antiplatelet therapy for one month followed by clopidogrel mono therapy.<sup>4</sup>

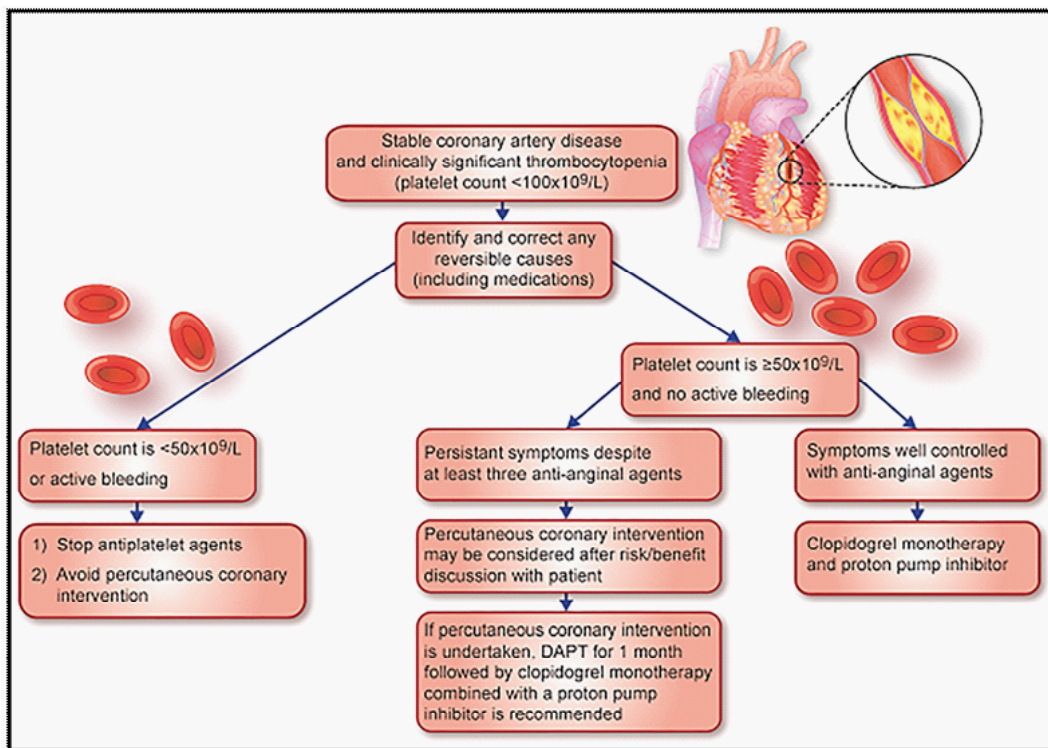
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Figure-1:



European Heart Journal, Volume 38, Issue 47, 14 December 2017, Pages 3488–3492

Figure-2:



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## REFERENCES

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