



## RESEARCH ARTICLE

### RARE CASE OF ESCITALOPRAM INDUCED THROMBOCYTOPENIA- A CASE REPORT

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#### Abstract

Drug-induced thrombocytopenia can be caused by dozens, perhaps hundreds of medications. Because thrombocytopenia can have many other causes, the diagnosis of drug-induced thrombocytopenia can easily be overlooked. In acutely ill, hospitalized patients, drug-induced thrombocytopenia can be overlooked because thrombocytopenia is attributed to sepsis, the effect of coronary-artery bypass surgery, or some other underlying condition. Although drug-induced thrombocytopenia is uncommon, it can be devastating. Heparin-induced thrombocytopenia is the most common drug-related cause of drop in the platelet count. Because heparin is often given together with certain drugs that are likely to cause drug-induced thrombocytopenia (platelet inhibitors and vancomycin), it is important to distinguish between heparin-induced thrombocytopenia and drug induced thrombocytopenia. Drug-induced platelet destruction is usually caused by drug-induced antibodies, but this can be difficult to prove. Although platelets are the preferred targets of drug-induced antibodies, drugs can also cause immune hemolytic anemia and neutropenia through similar mechanisms.

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#### Introduction:-

Many drugs can cause thrombocytopenia. Many a time this is misdiagnosed as auto immune thrombocytopenia and can have many recurrences before actual diagnosis is made. Usually this is attributed to sepsis and some other underlying condition. This can have catastrophic consequences but can be prevented by simply discontinuing the culprit medication. It's a must for physicians to have a general understanding of the condition and the drugs that can cause it. All drugs should be suspected in a patient with thrombocytopenia without an apparent cause and should be stopped or substituted. Although not studied well, herbal medications are associated with thrombocytopenia and should be discontinued in those who are thrombocytopenic. Classic drug dependent antibodies are the antibodies that react with specific surface antigens and result in thrombocytopenia only when drug is present. Drug induced platelet destruction caused by drug induced antibodies but is usually difficult to prove. Many drugs are capable of inducing these antibodies. Thrombocytopenia occur after period of initial exposure (median length of 21 days) and usually resolves in 7 to 10 days after drug withdrawal.

#### Case Report

22 year old female who was admitted in ward as a case of bereavement reaction and pseudo seizure following sudden demise of her husband.

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**Investigations At Admission**

Hb-12	SB-1.2	BU/cr-40/0.6	CXR-WNL
Tc-6500	TP/Alb-7.4/3.2	Na/k-140/3.6	ECG-WNL
Dc-P60L20	OT/PT/ALP-25/22/106		
Plt-2.6L			

Patient was given supportive psychotherapy and escitalopram as per advice from psychiatry department.

Neurology consultation was done-EEG revealed normal study and advised MRI brain

As symptom subsided patient was discharged for time being.

Was readmitted 1week later for MRI Brain. Routines taken during repeat admission was all normal except for thrombocytopenia (plt-54000)

There was no bleeding manifestations and patient was completely normal.

Hence worked up for cause of thrombocytopenia developed acutely in otherwise normal female.

1. Manual platelet count-65000
2. P/S-Thrombocytopenia
3. USG Abdomen- Grade 1 fatty liver

**No hepatosplenomegaly**

When patients' medication history was reviewed to look for cause of thrombocytopenia, we found patient was taking escitalopram for 1 week as per psychiatry advice for bereavement reaction in previous admission. Hence diagnosis was made as:-

**Drug Induced Thrombocytopenia-Escitalopram Induced**

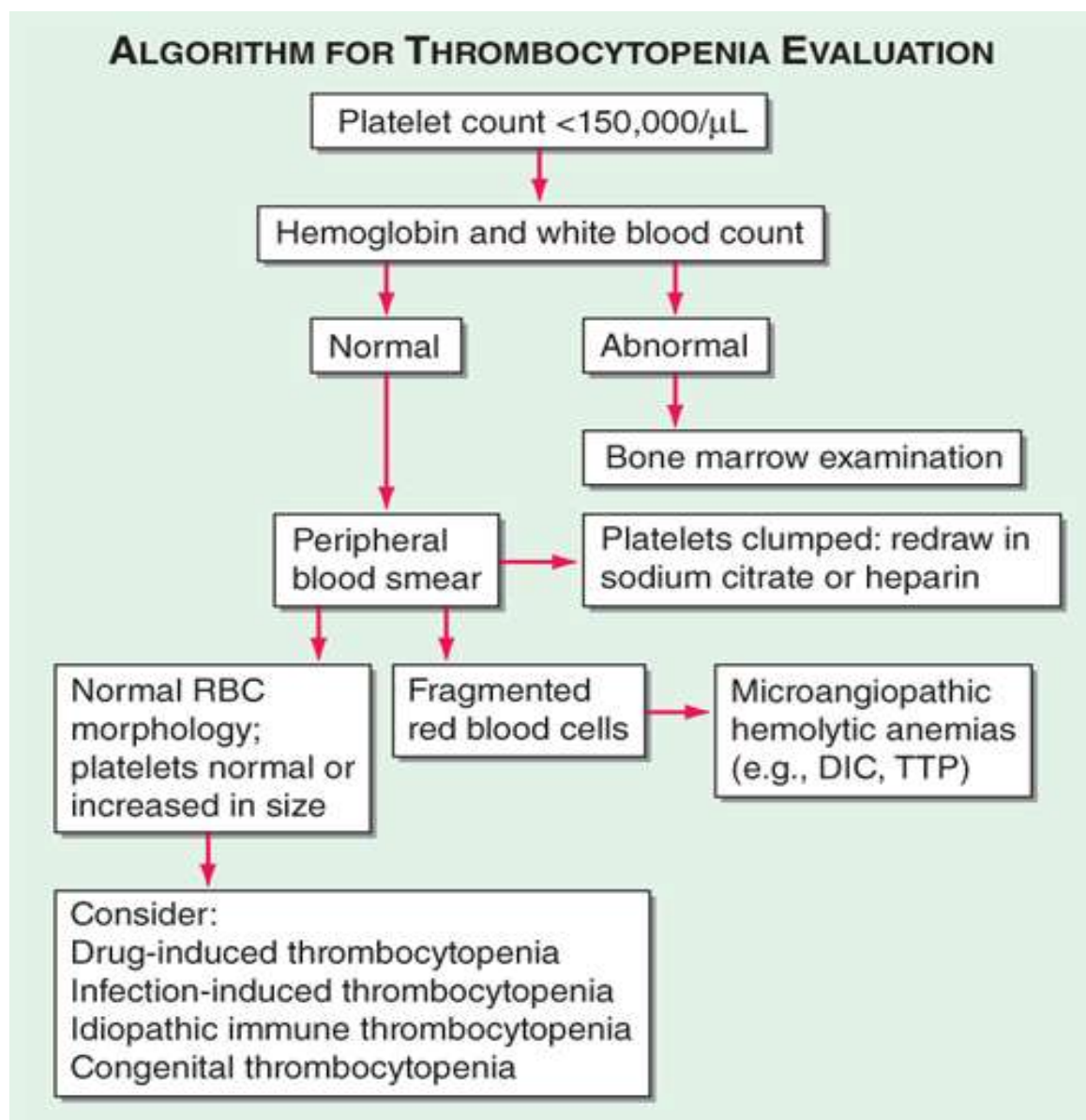
The medications were held for 3 days and platelet count was repeated.

Repeat platelet was 1.5 lakh at discharge

**Discussion:-**

Evaluation essentially involve complete blood count and peripheral blood smear as initial step. Whether a patient receive any drug for treatment is important is coming to differential diagnosis. Young adult with no comorbidities will have less differentials than old patients with many comorbidities. Disease affecting bone marrow also to be kept in mind while evaluating patients with thrombocytopenia. Even myelodysplasia can be presented in old age patients with isolated thrombocytopenia. Family history is also important in patients to rule out inherited causes. Regarding drug induced thrombocytopenia no predisposing environment or genetic factors are implicated. A patient who present as acute thrombocytopenia, drug induced thrombocytopenia form an important differential. At least 5 to 7 days of the exposure is needed to produce thrombocytopenia. In adult severe thrombocytopenia (less than 20,000) is more likely to be drug induced. In a patient with acute transient thrombocytopenia, drug induced thrombocytopenia is to be thought of because sometimes patients may not report of drug exposure. So all patients should be asked about history of recent medicine intake and history of recent vaccinations. However, testing in laboratory for drug induced platelet antibodies is not practical and hence not used. Since certain drugs are notorious for producing thrombocytopenia, they should be started at lower doses and should be monitored daily with platelet levels.

The approach to diagnose a case of thrombocytopenia is as follows.



### Conclusions:-

Many patients present with few symptoms like petechiae and require no treatment other than discontinuation of medicines causing it. When there is uncertainty about agent, all medication should be discontinued. Those with severe disease should be aggressively treated with transfusion of platelet to prevent fatal haemorrhage. Steroids may be used but there is no evidence to suggest the same. IV Ig and plasma exchange is used in acutely ill patients but benefits are uncertain. Once established drug sensitivity persist indefinitely.

So patients should to be advised to permanently discontinue the offending medication.

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