Red Cell Distribution Width as Outcome Predictor in Organophosphate Poisoning

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Abstract

Introduction:

Suicidal poisoning by OPC is however a major clinical and public health concern.

Red cell distribution width measures variability in RBC size. That means it reflects anisocytosis. It can easily be assessed in a complete blood count. It is found to be elevated heart failure, acute coronary syndromes and pancreatitis.

In organophosphate poisoning too there can be acute inflammation and oxidative stress. This too may cause a change in structure and size of RBC. So there is an expected increase in red cell distribution width. The level of elevation is associated with the level of inflammation and oxidative stress. Hence RDW can be assessed as a prognostic marker in organophosphate poisoning.
Objectives:

To Investigate the relation between Red cell distribution width and final outcome in patients with organophosphate poisoning

Materials and Methods:

The study will be conducted on 200 patients admitted to Government Rajaji Hospital & Madurai Medical College with history of organophosphate poisoning during the study period.

We included patients with clinical history of ingestion of OPC poison between age 13-60 yrs, did initial clinical assessment, serum pseudocholinesterase and RDW.

Conclusion: RDW levels can be used a prognostic marker in patients with OPC poisoning.

Keywords – Organophosphate poison, Red cell distribution, Anisocytosis,