

ELEVATED RED CELL DISTRIBUTION WIDTH AS A PROGNOSTIC MARKER IN SEPSIS

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Abstract

Background: Red cell distribution width is an independent prognostic marker. it has been used in many pathological conditions such as Cardiovascular diseases respiratory diseases and other inflammatory conditions. The association was independent of covariable such as anaemia, nutritional status. Inflammation and oxidative stress reduce RBC survival and suppress their maturation lead to release of premature RBC into circulation contributing Elevated RDW.

Objectives: To assess the association of red cell distribution width with mortality in patients with severe sepsis.

Methods : Patient received in ICU – Collect Blood for Culture and red cell distribution width. Compare clinical and lab investigations. severity of Illness duration of hospital stay ,requirement vasoactive agents with patients having high Red cell distribution width against low red cell distribution width;
Compare number of patients who died having High/Normal red cell distribution width as against their acute physiology and chronic health

evaluation score for sepsis; Compare number of patients who survived having Normal/ High red cell distribution width as against their Acute physiology and chronic health evaluation score for sepsis.

Results : Elevated RDW associated with increased 30 days mortality in ICU, increased inotropic requirement, increased need for renal replacement therapy.

Conclusion : RDW was relatively found to be an independent predictor of 30- days mortality. At admission APACHE II score PaO₂/FiO₂ ratio were observed to be independent predictors of 30- day mortality in cohort of severe sepsis patients admitted to emergency medical services.