**DIABETES MELLITUS IS A PREDICTOR OF HYPORESPOSIVENESS TO CLOPIDOGREL BY PLATELET FUNCTION TESTING IN EMERGENCY ROOM**

**R.K. Sharma1**, S.W. Erickson1, R. Sharma2, D.J. Voelker1, F. Forsea1, H. Dod2,

V.N. Singh3, H.K. Reddy1, J.D. Marsh1

1University of Arkansas for Medical Sciences, Little Rock, AR, 2Medical Center of South Arkansas,UAMS, Little Rock, AR, USA, 3University of South Florida, Tampa, FL, USA

Background: Studies have found that platelets from diabetic patients are generally more reactive and less responsive to anti-platelet therapy. Such patients undergoing per-cutaneous interventions (PCI) are more likely to have higher platelet reactivity predisposing to poor peri-procedural outcomes. The objective of our study was to evaluate the prevalence of hyporesponsiveness to clopidogrel in previously stented patients presenting to an emergency room with chest pain.

Methods: Platelet function assays were performed in 531 consecutive patients presenting to the hospital with chest pain as per chest pain center protocol if they were on clopidogrel and aspirin after coronary artery stenting. Multivariable logistic regression analysis was performed to evaluate the role of type II diabetes. Patients were labelled hyporesponders if they had P2Y12 Reactivity Units (PRU) ≥ 230.

Results: Out of 531 patients, 221 (41.6%) had PRU≥230. A multivariable logistic regression model was fitted to determine the relationship between clopidogrel hyporesponsiveness and several potential risk factors, including type II diabetes. There was a greater risk of hyporesponsiveness among patients with type II diabetes (adjusted odds ratio, AOR=2.109, p=0.0003) compared to those without.

Conclusions: There is a high prevalence of clopidogrel hyporesponsiveness among diabetic patients. Identification of these poor responders is important as they may have a higher risk of peri-procedural outcomes. Therefore, anti-platelet regimen may be optimized by higher dose of clopidogrel or an alternative P2Y12 receptor blocker in such patients.