The influence of diabetes mellitus on ECG findings during adenosine infusion as a vasodilator myocardial stress test, a comparative study to a control group

Amer H1, Ahmed G1, Niaz K1, Alhammad M1, Al Qattan M1, Eid A1 and Jelani A2
1King Abdulaziz Hospital – NGHA, Saudi Arabia
2King Abdullah International Medical Research Center, Saudi Arabia

Introduction: The ECG effects of diabetes are well known, however the influence of diabetes on the ECG findings during adenosine infusion compared to non-diabetics was not thoroughly investigated.

Methods: We performed a retrospective analysis of 213 patients identifying all the reported Gated myocardial perfusion SPECT with adenosine stress tests between January 2012 to January 2017 for all patients who presented with diabetes mellitus as a sole risk factor based on the hospital records and patient interview. The data were collected from the nuclear medicine database.

Results: Overall, 109 (51.17%) were females with mean age 55.51 ± 10.91 years. 103 (48.36%) were diabetic, 26 (12.21%) obese, and 32 (15.02%) were smokers. Only 3 (1.41%) has baseline ECG change, while 35 (16.43%) demonstrated arrhythmic ECG changes following adenosine infusion 17 (48.57) of them within diabetic group and18 (51.43%) within non-diabetic group, with no significant difference in both univariate and multivariate analysis.

Conclusion: The study showed that adenosine infusion result in moderate number of arrhythmic changes, with no significant association between diabetes mellitus and the ECG changes during adenosine infusion. Female showed a predominance of such changes (67%) compared to male patient with no significance P: value.

Biography
Amer H is currently an Associate Consultant at King Abdulaziz Hospital for National Guards, Saudi Arabia, he has the following qualifications, participated with researches in many national and international conferences. He is a diplomate American Board Member of Nuclear Cardiology (Cbnc) dec 2015, he has fellowship of Asian Nuclear Medicine Board FANMB/ OSAKA-JAPAN NOV 2014, fellowship of European Board of Nuclear Medicine FEBNM, Milan/Italy Oct 2012.

drhamidamer@yahoo.com