Limitations
The limitation of this study is the cross-sectional design for correlation and single center study.

Though our study did not show a significant correlation between other well known risk factors and severity of coronary artery disease, long term follow-up with HOMA-IR measured in the beginning of the disease and compared with angiographic findings after a few years along with other known risk factors might allow us to evaluate the strength of each factor in relation to other variables.

Although the cross sectional study design might be a limitation, since the burden of insulin resistance remains relatively constant from the beginning, the strong association with severity of CAD makes it possible to extrapolate this association to the beginning of the disease itself. Those with high IR in the beginning are likely to get severe disease.

The coronary angiogram was used to define no apparent CAD which is less sensitive to see mild atherosclerotic plaque. Intravascular ultrasound (IVUS) is said to be the gold standard to identify the vulnerable plaque which is was not done. However, it still remains unclear what morphological features will best predict plaque rupture and which diagnostic technologies would reliably predict the pathological and clinical courses of a vulnerable plaque.

The Manipal Diabetes Coronary Artery Severity Score model needs to be validated in an independent patient population by other investigators and longitudinal studies may help to determine the potential utility of this severity score.

The hyper-insulinemia euglycemic glucose clamp technique is said to be the gold standard for the measurement of insulin resistance/hyperinsulinemia but due its practical inconvenience, HOMA-IR index was used which has shown a good correlation with hyper-insulinemic euglycemic clamp test.

The one-year follow-up study is considerably limited by the small number of study patients, and that reduces the power of the statistical analyses. The MACE for each arm were not considered. The anti-atherosclerotic treatments were not optimal in some of the patients in the present study.
Future Directions

- Molecular studies are needed to be done to find out the role of hyperinsulinemia leading to severe vascular disease.

- Long term follow up with HOMA-IR and insulin levels measured at the beginning of type 2 diabetes mellitus and comparing it with angiographic findings after a few years along with other known risk factors might allow us to evaluate the strength of each factor in relation to other variables.

- Several long term studies are needed to find out the role of hyperinsulinemia/insulin resistance in predicting MACE in type 2 diabetes mellitus.

- Hyperinsulinemia/Insulin resistance must considered as future therapeutic targets.