

**Abstract Type : Poster**

**Abstract Submission No. : PO-1082**

## **Subclinical Relationship Between Atherosclerosis and Cystatin C in Patients with diabetes Type 2**

**Ganga Dulal<sup>1</sup>**, Ganga Dulal<sup>1</sup>, Shreya Dulal<sup>2</sup>

<sup>1</sup>Department of clinical, ASUNTA Medicare Hospital pvt ltd, Nepal

<sup>2</sup>Department of Nursing, Army Hospital, Nepal

**Objectives:** Cystatin C (CYSC) has been found to be an independent risk factor for cardiovascular disease. We aimed to evaluate the possible association between cysc and Subclinical Atherosclerosis in patients with Type 2 disease (CKD)

**Methods:** We Selected 120 patients both sexes with DT2 and CKD Aged 63.84±9.03 (25-75) years. Control group included 84 healthy subjects the same age. The intima media thickness (IMT) was measured as the distance between the Lumen-intima interface and the media adventitia interface. GFR was estimated using the Modification of Diet in Renal Disease (MDRD) equation.

**Results:** Patients were divided into 4 groups by cysc Levels Tertiles patients with DT2 had significantly higher mean CIMT, and TPA compared to control group cysc levels demonstrated significant positive correlation with the mean (LMT ( $r=0.45$ ,  $p=0.011$ ) and TPA ( $r=0.37$ ,  $p=0.03$ ). In multivariate logistic analyses adjusted for cardiovascular risk factor the association between CYSC and IMT remained significant (OR=2.59, 95% CI=1.06-6.33,  $P=0.04$ ) in contrast, neither serum creatinine nor estimated GFR were associated with IMT (OR=0.88, 95% CI=0.78-1.00,  $P=0.06$ , or=0.96, 95% CI= 0.89-1.04,  $P=0.30$ , respectively)

A receiver operating characteristic curve analysis validate the diagnostic accuracy of CYSC for CIMT. At a 1.01 mg/l cystatin (cut-off point, the sensitivity and specificity for increased CIMT were 84% and 78% Respectively (C-Statistic 0.81, 95% CI 0.71-0.90,  $P<0.001$ )

**Conclusions:** Our study demonstrated a significant association of increased CYSC levels with characteristics of carotid Atherosclerosis in patients with DT2.