

Analysis of Clinical profile, angiographic pattern of Coronary Ectasia in Coronary Artery Disease patients

ABSTRACT

INTRODUCTION :

Coronary Artery ectasia defined as coronary arterial luminal dilatation with diameter exceeding 1.5 times the adjacent normal segment . It is considered as form of positive remodeling in contrast to obstructive Coronary Artery Disease wherein negative remodeling is responsible for luminal narrowing (Stenosis) .Atherosclerosis is considered to be the most common contributory mechanism but studies the relationship between CAE and the traditional risk factors of atherosclerosis were given controversial results .Similarly novel inflammatory markers also giving conflicting result. Some follow up studies considered it as benign condition .But few studies observed significantly worse outcome . In view of unclear etiology and pathogenesis, conflicting results of outcome data ,no clear consensus or guidelines available regarding management of this entity which warrants further research in this area .Hence we planned our study “Analysis of Clinical profile, angiographic pattern Coronary Ectasia in Coronary Artery Disease patients”

MATERIALS AND METHODS: Adult patients >18 yrs. of age with the diagnosis of CAD (both Chronic Stable Angina and Acute Coronary Syndrome) undergoing Angiography in Department of Cardiology Govt Rajaji Hospital were taken as the study population. After excluding the patients who is having pre-existing valvular heart disease , congenital heart disease and arrhythmias ,and history of CABG ,& PCI the data were collected regarding the conventional risk factors and inflammatory markers neutrophil count ,Neutrophil lymphocyte ratio,Meanplatelet volume , Red cell Distribution width also assessed .In hospital and follow-up data were collected and analysed among the patient with isolated (ectasia isolated CAE) without CAD ,those with coexisting associated CAD (Mixed CAE +CAD) and then it was compared to the population who had only obstructive CAD (pure CAD) .

RESULTS :

Among the total 2434 angiogram done total prevalence coronary ectasia was found be 5.6%. Out of the total 136 patients with CAE, isolated ectasia (dilated coronaropathy) was seen in 17.6%(n=24) ,remaining 82.4% had associated obstructive CAD (n=112) . Isolated ectasia patients were relatively younger compared to other 2 groups (44 ± 8.6 Vs 54.32 ± 8.72 Vs 56 ± 7.8 $P<0.001$) had male dominance with (7: 1). But diabetes mellitus was less frequent in this group

compared to others. But traditional risk factors are not significantly different among mixed CAE +CAD group when compared to pure CAD group . On the other hand inflammatory markers were significantly higher among isolated CAE and Mixed group when compared to pure CAD group Neutrophil count (P value <0.001),NLR group 3.98 ± 0.89 & 3.58 ± 0.56 when compared to pure CAD group 2.82 ± 0.60 . Mean platelet volume is not different among the 3 groups . Out come data showed that nil hospital mortality is in isolated ectasia group ,and in hospital mortality is not different between mixed and pure CAD groups .Similarly follow up data proved similarity between pure CAD group and mixed CAE +CAD group except for increased frequency of angina among mixed group .

CONCLUSION : Isolated ectasia is a unique phenomenon , seen in relatively younger population , having inverse association (less frequent) with Diabetes mellitus , neutrophil mediated active inflammation and this has nil effect on mortality . But Coronary artery ectasia if associated obstructive CAD has evidence of high inflammatory activity than pure CAD ,but does not worsen the prognosis of coexisting CAD except for increased frequency of unstable angina .

KEY WORDS : Coronary artery ectasia , isolated ectasia , inflammation ,

Traditional risk factors , inflammation , outcome