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Abstract

What is the commonest site of coronary artery involvement in diabetic patients with coronary artery disease?

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Introduction

Diabetes is a complex metabolic disease with different targets of vascular endothelial injury. This study concentrates on locating the common areas of insult in the coronary vascular tree among diabetic patients.

Objectives

To evaluate the frequent sites of coronary artery involvement in diabetic patients and to compare with non-diabetic patients with Coronary Artery Disease (CAD).

Methods

Retrospective observational study was conducted on all patients with coronary angiographic evaluation for CAD at Cardiology Unit, Kandy.

Results

Among 1531 patients reviewed, 37.5% were diabetics (69% males) with a mean age of 56.76±8.5 years. Among them 54.3% had hypertension and 13.3% had dyslipidaemia. Single vessel disease (SVD) was the commonest (30.3%) pattern, whereas 27.6% had dual vessel disease and 26.9% had triple vessel disease. There were 35.6% with significant (stenosis >70%) proximal Left Anterior Descending (LAD) lesions, 17.4% with proximal Left Circumflex (LCX) lesions and 26.7% with proximal Right Coronary Artery (RCA) lesions. There were 13.4%, 13.5% and 10% with distal LAD, LCX and RCA involvement respectively. There were 56.5% with at least one proximal vessel involvement and 35.8% with at least one distal vessel involvement. There were 35.4% and 25.4% with significant diagonal and obtuse marginal vessel involvement respectively, among diabetics. There was a significant involvement of diagonal and obtuse marginal branches in diabetics compared to non-diabetics (p=0.001).

Conclusion

Single vessel disease and proximal LAD involvement were the commonest patterns observed among diabetic patients and they showed significant involvement of diagonal and obtuse marginal arteries compared to non-diabetic patients.

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