**HYPERLIPIDEMIA DOUBLES THE RISK OF MULTIVESSEL INVOLVEMENT IN PERIPHERAL ARTERIAL DISEASE DESPITE BEING ON STATINS**

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Introduction: Dyslipidemia is a known risk factor for cardiovascular disease and statin therapy has shown to improve the outcome significantly. Only a limited number of studies available evaluating the effect of dyslipidemia and statin therapy purely on peripheral arterial disease (PAD). This study was design to identify effect of dyslipidemia on multivessel involvement in PAD compared to single vessel involvement.

Methods: This is retrospective study from 7/1/2004 to 7/1/2006. All the patients who had symptomatic PAD and had peripheral angiography performed during the study period were included. Backward regression analysis was done to identify the effect of dyslipidemia as predictors for multivessel involvement.

Results: Out of total of 403 patients with symptomatic PAD 158 (39.2%) had two or more vessel involved; mean age was 73 ± 11 years, 50% were male, 49% were Caucasians and 25% were African American. There were 123 (50%) patients with one vessel disease and 81(51%) patients in multivessel disease had hyperlipidemia. 49 % patients with one vessel disease and 47% patients in multivessel disease were on statins. Odds ratio for involvement of multivesssel PAD compared to one vessel involvement in patients with Dyslipidemia is 2.25 with a confident interval of 1.14 – 4.47 (p = < 0.020).

Discussion: Dyslipidemia has doubled the risk of development of multivessel PAD compared to single vessel involvement despite being on statins. This is a significant finding even though it was difficult to evaluate in the retrospective study whether they were on optimum dose of statin therapy.