MONOCYTE CHEMOATTRACTANT PROTEIN-1 AS A PROGNOSTIC MARKER BEFORE AND AFTER REVASCULARIZATION

Thesis

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Abstract

Introduction: Inflammation is an important feature of CAD, during which elevated levels of several pro-inflammatory cytokines may be detected in the peripheral circulation; MCP-1 has been implicated in plaque progression and rupture.

Aim of the work: to determine the level of MCP-1 & size of myocardial perfusion defect, the relation between level of MCP-1 & size of defect, the number & severity of stenosed vessels & the effect of revascularization on the defect size & the MCP-1 level

Methods: the study was conducted on 50 patients with established CAD, MCP-1 & total defect size were determined before & 6 months after revascularization

Results: There was a significant decline in MCP-1 & total defect size after PCI [P_0.0001], there was a positive correlation between MCP level & the total defect size before & after PCI, **Diabetics** had a higher MCP level compared to non-diabetics [P_ 0.039]while total defect size wasn't significant between both groups, On the contrary, **smokers** had a larger defect size after PCI [P_0.028] compared to non smokers while MCP level wasn't significant between both groups, **Patients maintained on statins** had a significantly lower MCP & smaller defect size before & after PCI [P_0.0001], **LAD group** was associated with significantly higher MCP compared to non LAD group before PCI [P_0.005] & this significance increases as the severity of LAD lesion increases or was associated with other vessel affection, **the multi-vessel group** had a significantly higher MCP levels before PCI compared to single vessel group [P_0.0001] and MCP persisted higher after PCI, the total defect size was higher in the multi-vessel group compared to single vessel group but this had lacked statistical significance, **the stent type [BMS or DES]** wasn't associated with significant difference regarding MCP levels and defect size before or after PCI

Conclusion: MCP can be used as a prognostic marker before & after revascularization.

Key Words:
Monocyte Chemoattractant Protien-1, Percutaneous Coronary Intervention (PCI), Cardiac Biomarkers.