**PLAQUE LYMPHANGIOGENESIS: TO DRAIN OR NOT TO DRAIN**

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Vulnerable plaques are hallmarked by more pronounced inflammation and neoangiogenesis. Although angiogenesis and lymphangiogenesis are driven by partly overlapping cues, and especially under inflammatory conditions go hand in hand, plaque lymphangiogenesis only in one single earlier report been linked to plaque stability. In this paper we show that lymph vessels are almost exclusively present in advanced atherosclerotic plaque, and that their presence is correlated with plaque inflammation. Employing a genomics-driven approach we identified a gene module highly associated with plaque lymph vessel density and we have pinpointed the most critical genes within this cluster, which were hitherto not linked to lymphangiogenesis. Loss of function studies in vitro showed an overt impact of two of four central hub genes of this module in lymph endothelial differentiation and function. Microarray analysis of lymphatic endothelial cells with silenced lead expression revealed the regulatory network of plaque lymphangiogenesis, which was seen to be enriched in the plaque lymphangiogenesis related module. Finally, blockage of this network in vivo by plaque confined silencing of one of the network members not only led to reduced lymphangiogenic response, but also to plaque expansion, suggesting that plaque lymphatics actually protect against atherosclerosis.