**CAN THE VULNERABLE PLAQUE BE IDENTIFIED AND TREATED TO PREVENT FUTURE ADVERSE CARDIAC EVENTS?**

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The vulnerable or high risk plaque is considered the precursor of thrombosed plaque which is the immediate cause of the majority of myocardial infarctions and sudden cardiac deaths. The search for vulnerable plaque has been the object of intense research over the last few years with the hope that recognition might result in an approach possibly interventional that could be used to prevent subsequent myocardial infarction or cardiac death. While pathologic studies indicate that a thin-capped fibroatheroma (TCFA) represents the most common vulnerable plaque type, in vivo identification of the vulnerable plaque responsible for future adverse cardiac events is not presently possible even though a TCFA can be recognized. Thus, in the PROSPECT trial, there were only 6 myocardial infarctions over 3 years from non culprit plaques in spite of nearly 600 TCFA’s identified at baseline. Furthermore, even if the vulnerable plaque were identified an interventional approach would have to be safer than optimal medical therapy.

Given these limitations, preventing future cardiac events will have to be best accomplished by identifying the vulnerable or high risk patient. This lecture will discuss the pros and cons of vulnerable plaque detection, comment on how to best identify vulnerable patients and whether it is possible to reliably identify the vulnerable patient in primary prevention.