

The 1st Vulnerable Patient Satellite Symposium

Introducing a New Era in Preventive Cardiology

Annual Scientific Sessions of American Heart Association 2003, Orlando, FL



Bullet Points from Dr. Shah's Presentation: (presented by his associate Dr. Kuang-Yuh Chyu)

- Pravastatin treatment increases collagen content and decreases lipid content, inflammation, metalloproteinases, and cell death in human carotid plaques. This study was evidenced by pathology examinations of carotid specimens after 3 months of statin therapy, indicating the significant role of systemic therapy in plaque stabilization.
- Low-HDL level is a major risk factor of coronary heart disease. In addition to stimulating reverse cholesterol transfer, HDL has many biological effects (such as antioxidant, anti-inflammatory, anti-apoptosis, and anti-thrombosis) which make HDL a great therapeutic target.
- Apo-A1 Milano is a mutant form of Apo-A1 that was found in people with low-HDL but no heart disease indicating a strong protective effect. In animals models, intravenous recombinant Apo-A1 Milano markedly inhibits atherosclerosis, halting its progression and even inducing regression of lesions within 5 weeks. Furthermore it reduces lipid and macrophage content of plaques indicating a plaque stabilizing effect. Adeno associated virus mediated Apo A-I milano gene transfer also produces similar effects in mice.
- Even a single high-dose of recombinant Apo-A Milano significantly reduced lipid and macrophage content of plaques within 48 hours in a mouse model indicating a rapid plaque stabilizing action.
- The first double blind human clinical trial with 5 weekly injection of recombinant Apo-A1 Milano showed significant reduction in plaque volume evidenced by IVUS indicating that Apo-A Milano does induce rapid regression of atherosclerosis.
- HDL based therapy has a promising future in stabilization / regression of atherosclerosis in vulnerable patients.