

Antibiotics ineffective in preventing heart attacks

Based on observational studies, some physicians used these drugs in secondary prevention of cardiovascular disease. Now, two recent large studies say this approach doesn't work.

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MUCH TO THE DISMAY OF INVESTIGATORS searching for a way to attack the infectious disease process believed to have a role in heart disease, two studies presented in August at the European Society of Cardiology annual congress in Munich concluded that antibiotics were not the way to go.

According to results from the Azithromycin and Coronary Events Study (ACES) and the Pravastatin or Atorvastatin Evaluation and Infection Therapy trial (PROVE-IT), adding antibiotics to the regimen of patients who had already experienced a cardiovascular event did nothing to prevent them from having another one.

"Taken together, these studies offer the final word that the antibiotic concept doesn't work," said Christopher Cannon, MD, PROVE-IT's principal investigator and a cardiologist at Brigham and Women's Hospital in Boston.

Various bacteria and viruses have long been implicated in heart disease development, with *Chlamydia pneumoniae* as the favorite target. Several small observational studies have sug-

since you'd administer the vaccine in childhood and only have evidence whether it had worked 60 years later," said J. Brent Muhlestein, MD, one of the lead investigators for ACES and professor of medicine at the University of Utah. "And the trouble with primary prevention studies is that historically, we generally start by proving benefit in secondary prevention and then go to a primary prevention. We'd have to be really convinced that it's a valid argument."

Because of these challenges, most experts believe the next novel approach will be drugs that more directly attack the inflammation also believed to play a role in the development of heart disease.

For the moment, researchers are recommending what is known to work — particularly statins. In April of this year, PROVE-IT researchers published in the *New England Journal of Medicine* results demonstrating that intensive lipid-lowering therapy was better for myocardial infarction patients than standard therapy.

"Clinicians need to use proven therapies ... including high-dose statins, found to be effective in the statin component of the PROVE-IT

trial," said Dr. Cannon.

Those not associated with the study say this is another example, much like the Women's Health Initiative, that making prescribing decisions on observational or preliminary studies must be done cautiously.

"It once again demonstrates the incongruity between encouraging observational data and data obtained in clinical randomized trials," said Michael Miller, MD, director of the Center for Preventive Cardiology at the University of Maryland Medical Center in Baltimore. "We have previously seen promising observational data when antioxidant vitamins and hormone therapy had been used, only to be quashed when put to the test." ♦