Taking an NSAID pain killer linked to risk of atrial fibrillation

By ACSH Staff — April 9, 2014

Nonsteroidal anti-inflammatory drugs (NSAIDs, Advil, Aleve, others) are widely used to treat inflammatory conditions and pain, caused by conditions as varied as headaches, trauma, and arthritis. Use of NSAIDs has previously been associated with a higher risk of cardiovascular events, including heart attack, and also with enlarged heart and heart failure [1].

Atrial fibrillation (AF) is a common cardiac arrhythmia (irregular heartbeat), especially among the elderly. It is associated with increased incidence of stroke and heart failure, and reduced life expectancy. Several drugs have been associated with an increased risk of AF, and recently, some studies suggested that NSAIDs may also be associated with a higher risk of AF [2].

The previous studies investigating the association between NSAIDs and AF are mainly retrospective case control studies with limited availability of potential confounders. Therefore, the objective of the current study [3] was to investigate whether current or recent use of NSAIDs is associated with AF in a prospective study with precise data on newly-acquired AF, complete information on drug use and potential confounders.

The authors, led by Dr. Bruno Stricker of the Erasmus Medical Center in Rotterdam, the Netherlands, studied 8,423 patients after baseline evaluations, beginning in 1990, with frequent follow-ups. The average age of the group was 68, and the average length of follow-up was 13 years. All patients were over age 55; women comprised a bit over one-half of the study subjects.

They found that the patients who were using an NSAID for between 15 and 30 days currently, or had used one at some time within the prior 30 days for at least 15 days, had a 76 percent higher risk of AF. Interestingly, however, use of an NSAID for more than 30 days was not associated with the development of AF.

The results support previous studies in this area [4], "but also suggest that the increased risk occurs shortly after starting treatment and may disappear over time," the authors wrote, according to
ACSH’s Dr. Gil Ross had this perspective: Over the past several years, data have accumulated convincingly implicating some NSAIDs in a causative role for various heart and vascular outcomes. The mechanism for these effects is not clear: some think it has to do with the molecular pathway by which NSAIDs work, inhibiting the enzyme cyclooxygenase; others propose that it’s the underlying inflammatory disease which causes both the NSAID use and the arrhythmia. Although the actual mechanism is not yet clear, I’d be cautious with older patients regarding NSAID use, especially if they have pre-existing heart or circulatory disease.