Teaching an old drug new tricks

By ACSH Staff — March 21, 2012

Recent research is raising questions about the benefits of regular aspirin for the prevention of cardiovascular problems in people who have never had such problems. Yet new research is suggesting that, when considering the benefits of daily aspirin, maybe it’s not only cardiovascular disease that we should be looking at. According to three new studies published in The Lancet and The Lancet Oncology, daily aspirin may actually help reduce the toll of cancer.

For these studies, Dr. Peter Rothwell of the University of Oxford and colleagues analyzed a host of studies both randomized and observational to assess the effects of aspirin on cancer. Earlier studies by this research group had suggested that taking a daily dose of aspirin reduced the long-term cancer death rate, so the new studies sought to determine the short-term effects of this therapy, as well as differences in these effects over time.

The first study included 51 randomized trials, where some patients received daily aspirin for the prevention of adverse cardiovascular events and others did not. Researchers found that those participants taking aspirin had a 15 percent reduced risk of cancer death compared to the control group. After five years of treatment, the reduction in cancer mortality increased to 37 percent.

The second study assessed data from five large trials where patients were randomized to take 75 mg or more of aspirin daily, with the goal of reducing cardiovascular events. The results of this study showed that, after an average follow-up of over six years, patients on aspirin had roughly one-third less risk of cancer with distant metastasis in addition to other reductions in cancer risks compared to patients who did not take aspirin. In other words, aspirin users were less likely to have a cancer that spread an occurrence that makes the cancer much more difficult to treat.

Further bolstering their findings, the researchers also discovered that observational data correlated well with the evidence from randomized trials. For example, the reduction in colorectal cancer risk was about 40 percent for aspirin-takers in both the randomized and observational studies. Overall, the effects of aspirin on cancer seem to be the same for both men and women, and even low-dose, slow-release pills were effective in reducing cancer risk.

Yet none of these studies were designed with cancer outcomes as the primary endpoints, notes ACSH’s Dr. Gilbert Ross. This means that these studies alone cannot determine cause and effect. What is needed is a controlled trial, where patients would be randomly assigned, on a prospective basis, to either aspirin or a placebo, with cancer outcomes specifically monitored. Such a study would be very feasible, and given the strength of these studies, would likely confirm a protective benefit of aspirin against cancer incidence, spread, and death.

ACSH’s Dr. Josh Bloom observes that, Although the mechanism by which aspirin might act against cancer is unclear, at such a low dose, most people would be much less likely to
experience the side effects that patients are susceptible to when taking aspirin acutely for pain or fever control, or chronically for arthritis where the daily dose is 25-50 times higher. Furthermore, Dr. Bloom explains, aspirin comes enteric-coated, making it less likely to cause stomach distress. However, the possibility of bleeding both gastrointestinal and cerebral is always going to be a small risk, and should be balanced against these potential benefits.

Still, anyone thinking of starting on aspirin to reduce cancer risk should consult with a doctor first, as ACSH’s Cheryl Martin reminds us. Such a conversation will help the individual to assess the risks and benefits while considering his personal health situation.