Aspirin for Primary Prevention of Cardiovascular Disease? Pros

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There is poor evidence that aspirin is effective for the primary prevention of cardiovascular events, although it may change the way that they present. Indeed, there is no evidence that long-term aspirin should be given to patients even with known cardiovascular disease. Theoretical arguments that aspirin can prevent cardiovascular events by reducing the propagation of thrombus are countered by evidence that plaque hemorrhage from vasa vasorum may also cause plaque growth and instability. There is evidence that aspirin causes serious bleeding into the brain and the gut.

Aspirin may also detract from the benefits of drugs that have definite cardiovascular benefits, such as angiotensin-converting enzyme inhibitors. Meta-analysis is prone to multiple biases in favor of aspirin, including publication bias, bias due to trial and endpoint selection and bias due to interpretation. Meta-analysis should not be relied on in preference to adequately powered clinical trials. Unfortunately, the benefits of aspirin, if they exist, may be small that a very large study indeed would be required to demonstrate that its benefits outweigh its risks.

The evidence that aspirin might reduce cancer is intriguing but relies on data from trials conducted many decades ago using a wide range of aspirin doses. Antiplatelet agents exhibit anti-inflammatory effects as seen from the decrease in inflammation markers. Issues related with aspirin use can be lowered by reduced dose and GI protective agents such as PPI. Several antiplatelet agents also have anti-atherosclerotic effect. In the future clinical trials, we need to find a potential role of candidate antiplatelet agents for primary prevention with balancing clinical efficacy and safety.