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NEWS BRIEFS from the Aspirin Foundation

10-year women's study ends

A landmark 10-year study of the effects of aspirin on multiple vascular outcomes in women - including cardiovascular disease, cancer, age-related loss of vision and senility – ends this month. (*CBS News, February 8th*).

The Women's Health Study, based in Boston, was a randomised, double-blind, placebo-controlled primary prevention trial evaluating the balance of benefits and risks of low dose aspirin and vitamin E on cardiovascular disease and cancer among approximately 40,000 female health professionals aged 45 years and over in 1993 (*J Womens Health Gen Based Med 2000;9:19-27*). The investigators hope the study will have the same impact as the influential Physicians' Health Study, which began in the late 1980s.

Although some data have already emerged from the Women's Health Study (for example, on the prevalence of dry eye - *Am J Ophthalmol 2003;136:318-26*), interest is currently focused on the effect aspirin dose on plaque formation, using CAT scans to measure change in arterial plaque thickness. The results, which are expected to be published at the end of 2004, may enable clinicians to determine which patients will benefit from aspirin and at what dose.

Aspirin prophylaxis in polycythaemia vera

Polycythaemia vera, a condition in which the bone marrow produces an excess of blood cells and of red cells in particular, is associated with an increased risk of thrombosis. Treatment traditionally aims to lower the red cell count by periodic venesection and to reduce marrow activity by treatment with antineoplastic agents such as hydroxyurea. Until recently, the role of antithrombotic agents was unclear; now, Italian and Swedish investigators have shown that prophylaxis with low-dose aspirin can prevent many thrombotic complications without significant adverse effects (*N Engl J Med 2004;350:114-24*).

518 patients with polycythaemia vera were randomised to placebo or enteric-coated aspirin 100 mg/day. They had no history of thrombosis and no contraindications to aspirin; the mean haematocrit was 48% (normal 45%) and the mean platelet count was 382,000/mm³ (normal 150,000 - 400,000/mm³).

After an average follow-up of 3 years, aspirin was associated with a significantly lower combined incidence myocardial infarction, stroke, cardiovascular death, pulmonary

embolism and major venous thrombosis (RR 0.40; CI_{95%} 0.18, 0.91) compared with placebo. However, there was no reduction in the risk of death overall or from cardiovascular causes.

Aspirin was not associated with an important risk of bleeding: there was a small increase in minor bleeding episodes but the risk of major episodes was not significantly increased (RR 1.62; CI_{95%} 0.27, 9.71). The authors conclude that low-dose aspirin can safely reduce the risk of thrombotic complications of polycythaemia vera in patients with no complications.

Aspirin - vitamin S?

Aspirin meets some of the criteria for a vitamin, according to Gareth Morgan, public health practitioner at the National Public Health Service for Wales. Writing in *New Scientist* (2004;181:36), he makes the case for salicylate as a natural dietary component that is essential for maintaining good health.

Plants produce salicylate as a defence mechanism and it occurs in high levels in organic foods. It is uncertain how much salicylate contributes to the lower risk of heart attack and some cancers associated with a diet high in fruit and vegetables but there is a circumstantial link. Unfortunately, mass-produced fruit and vegetables are grown under optimised conditions and sold in pristine condition, so the salicylate content of non-organic produce is low. The nation could be salicylate-deficient, says Gareth Morgan.

Why confer vitamin status on aspirin? It would change public perceptions and increase uptake. Mr Morgan estimates that the chances of living healthily past ninety years of age could be doubled by starting low-dose aspirin at fifty. There is no 'S' vitamin, he says, and aspirin is waiting in the wings.

Aspirin use and Hodgkin's disease

Regular intake of aspirin is associated with a 40 percent reduced risk of Hodgkin's lymphoma compared with lesser use, say Boston epidemiologists (*J Natl Cancer Inst* 2004;96:305-12).

They compared aspirin consumption over 5 years by 565 patients with Hodgkin's lymphoma with that of 679 controls. Aspirin use was divided into two categories: regular (averaging at least two aspirin tablets weekly) and non-regular (averaging less than two tablets weekly). Compared with non-regular consumption, regular use was associated with an odds ratio for Hodgkin's lymphoma of 0.60 (CI_{95%} 0.42, 0.85). This was not true for other NSAIDs (OR 0.97; CI_{95%} 0.73, 1.30) and paracetamol was associated with a significantly higher risk (OR 1.72; CI_{95%} 1.29, 2.31) than non-regular use.

The authors suggest that, unlike other NSAIDs, aspirin may exert a specific effect on Hodgkin's cells by inhibiting the transcription factor NFkappaB, which is necessary for their survival.

Aspirin Foundation website

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