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Aspirin may temper brain power decline in elderly women at risk of heart disease

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Daily low dose aspirin could slow the decline in brain power among elderly women at high risk of heart disease, indicates observational research published in the online journal *BMJ Open*.

The researchers base their findings on 681 women between the ages of 70 and 92, 601 of whom were at high risk of heart disease and stroke, defined as a 10% or greater risk on a validated risk scale (Framingham).

All the women were subjected to a battery of tests to measure their physical health and intellectual capacity, including verbal fluency and memory speed, and dementia (mini mental state exam, or MMSE for short) in 2000-1.

Their health was tracked over a period of five years, at the end of which the intellectual capacity of 489 women was assessed again.

Some 129 women were taking low dose aspirin (75 to 160 mg) every day to ward off a heart attack or stroke when the monitoring period started. A further 94 were taking various other non-steroidal anti-inflammatory drugs (NSAIDs).

The MMSE score fell, on average, across the whole group at the end of the five years, but this decline was considerably less in the 66 women who had taken aspirin every day over the entire period.

This held true, even after taking account of age, genetic factors, the use

of other NSAIDs, and the cardiovascular risk score.

The researchers then divided up the group into those who had taken aspirin for the entire five years (66); those who had stopped taking it by 2005-6 (18); those who were taking it by 2005-6 (67); and those who hadn't taken the drug at any point (338).

Compared with women who had not taken aspirin at all, those who had done so for all five years, increased their MMSE score, while those who had taken aspirin at some point, registered only insignificant falls in MMSE score.

The test results for verbal fluency and memory speed indicated similar patterns, although the findings weren't statistically significant.

There were no differences, however, in the rate at which the women developed dementia.

The researchers then looked only at the women with a Framingham risk score of more than 10%. Again, similar patterns were evident.

The fall in MMSE score was less among those taking aspirin than those who weren't, and there was no difference between those taking other NSAIDs and those who weren't. The same was true of the verbal and memory tests, although the differences were not statistically significant.

The authors caution that theirs was an observational study, and that the MMSE can't detect subtle changes in cognitive ability. But they suggest their findings indicate that aspirin may protect the brain—at least in women at high risk of a heart attack or stroke.

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