EDITORIAL

PPIs with aspirin in older patients lowers risk of major bleeds

AUTHOR
Dr Peter Savill
BSc MBBS PGDipCard
GPwSI Cardiology,
Southampton, UK

THE CURRENT RECOMMENDATION FOR PATIENTS SUFFERING ISCHAEMIC VASCULAR EVENTS IS FOR lifelong antiplatelet treatment based on trial data mainly in patients under the age of 75. However, these drugs are not without risk and upper gastrointestinal (GI) bleeding is a potentially serious complication. This risk could be attenuated by co-prescription of proton pump inhibitors (PPI) but current guidelines do not routinely recommend this.

A UK prospective population-based cohort study, published in *The Lancet*, assessed the risk, time course, and outcomes of bleeding on antiplatelet treatment for the secondary prevention of cardiovascular disease in patients of all ages.[1] The Oxford Vascular Study (OXVASC) covers 92,728 patients registered with 100 GPs from nine practices in Oxfordshire.

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Consecutive patients in the OXVASC study who had suffered a first transient ischaemic attack, ischaemic stroke, or myocardial infarction, from 2002 to 2012, were studied. All patients had been treated after the event with antiplatelet drugs, mostly aspirin, and without routine PPI use. Patients were followed up face to face at 30 days, six months and at one, five and ten years by a nurse or doctor.

The authors studied subsequent bleeding events and recorded data on type, severity, outcome and time course of bleeding requiring medical attention. They estimated age-specific numbers needed to treat (NNT) to prevent upper GI bleeding with routine PPI prescription from Kaplan-Meier risk estimates and relative risk reduction estimates from previous trials.

Data were collected on 3,166 patients, 1,582 (50%) of whom were aged ≥75 years and 577 (18%) 85 or older. There were 405 first bleeding events, more than half were upper GI (n = 218), 45 were intracranial, and 142 classified as other, during 13,509 patient-years of follow-up.

The risk of non-major bleeding was unrelated to age. However, the risk of major bleeding increased steeply with age; in patients ≥75 years hazard ratio (HR) 3·10 (95% CI: 2·27-4·24; P < 0·0001) at ten years.

At age 75 years or older, major upper GI bleeds were mostly disabling or fatal. The long-term risk of disabling or fatal upper GI bleeding was ten times higher in this age group: HR 10.26 (95% CI: 4.37-24.13: P < 0.0001). The absolute risk was 9.15 per 1,000 patient-years. This substantially outnumbered disabling or fatal intracerebral haemorrhage.

The use of a PPI was assessed with an estimated NNT of 25 to prevent one disabling or fatal upper GI bleed over five years in patients aged 85 years and older. For younger patients (< 65 years) the NNT rose to 338.

The authors conclude: 'In secondary prevention with aspirin-based antiplatelet treatment without routine PPI use, the long-term risk of bleeding at age 75 years or older is higher and more sustained than in the younger age groups included in previous trials, with particularly high risks of disabling or fatal upper GI bleeding.

'Given that half of the major bleeds in patients aged 75 years or older were upper GI, the estimated NNT for routine PPI use to prevent major upper GI bleed is low and co-prescription should be considered in future secondary prevention guidelines,' they add.

REFERENCE
1 Li L, Geraghty O, Mehta Z et al on behalf of the Oxford Vascular Study. Age-specific risks, severity, time course, and outcome of bleeding on long-term antiplatelet treatment after vascular events: a population-based cohort study. *Lancet* 2017. DOI:http://dx.doi.org/10.1016/S0140-6736(17)30770-5

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