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ASA and Bleeds

Telling healthcare professionals that ASA can cause bleeding is not news. Mentioning that ASA related bleeding risk increases with advancing age would also not have much shock value. A large observational study published in *The Lancet* which quantifies the degree of risk, however, is very interesting.

We use low dose ASA for many of our residents who experience TIAs, have suffered a past ischemic stroke or have atherosclerotic heart disease with elevated MI potential. There is controversy whether the benefits of treatment outweigh bleeding risk. Still, in the extreme elderly, ASA, and other antiplatelet drugs, such as Plavix® are treatment mainstays.

The study examined over 92,000 British patients treated with antiplatelet drugs (mostly ASA) after an MI, ischemic stroke or TIA. Over a ten-year period, 3,166 experienced a bleed. Compared to patients under 75-years of age, the relative risk or hazard ratio (HR) for major bleeding in those greater than 75 years was 3.10. The HR for fatal bleeds vs the "younger" group was 5.53. Disabling or fatal GI bleeds outnumbered brain (intracerebral) bleeds of the same severity by 45 to 18 in those over 75.

A review of studies using PPIs (e.g. Losec®, Pantoloc®, etc.) for GI protection from antiplatelet drugs (mostly ASA) showed a 74% reduction in upper GI bleeding. Using this data, the authors estimate that the number of patients needed to treat (NNT) to prevent one major upper GI bleed in the 85+ age group (over a 5-year period) would be 21. The NNT for a fatal GI bleed would be 25.

These are very strong numbers, so the study conclusion was that all patients over 75 years of age taking ASA should also be prescribed a PPI. It must be noted that PPIs carry risks of their own. The emergence of *C. Difficile*, osteoporosis, Mg or vitamin B12 deficiency are some of the more concerning possibilities. Residents using these drug combinations must be carefully monitored.

Elderly Anaphylaxis

The elderly are prone to anaphylactic reactions. Since multiple chronic illnesses and heavy medication loads are common, their ability to respond to an allergic challenge is often compromised. As a result, catastrophic outcomes are very possible, unless quick, decisive action is taken.

Food allergies are the primary cause of anaphylaxis in the elderly. Nuts, shellfish and milk are some of the more common triggers. Drugs may also be responsible. Penicillins, cephalosporins and non-steroidal anti-inflammatory drugs, such as naproxen and diclofenac are the main concerns. Much is made of the cross-sensitivity between penicillins and cephalosporins, though the risk is quite low. Ceftin® (cefuroxime) and Suprax® (cefixime) are good non-penicillin options, as they are unrelated to penicillin and carry no cross-sensitivity.

Anaphylaxis can affect many organ systems. Skin rashes can progress to angioedema, causing swelling of the lips, tongue and throat. Spasms in the bronchioles can critically limit respiration. Leakage of fluid from blood vessels can impair circulation and cause cardiovascular collapse.

Cardiovascular drugs, such as β-blockers and ACE inhibitors prevent the heart and blood vessels from responding to these events. Adrenalin (0.3 – 0.5ml) must be administered quickly to prevent progression. The dose can be repeated 3-4 times and the resident should be watched over 12 hours to ensure symptoms do not return.

Prepared by Randy Goodman
Certified Geriatric Pharmacist