Capsaicin

Dear bpac,
Has capsaicin been proven to provide symptomatic relief for osteoarthritis? Or is the evidence still insubstantial?

GP, Te Aroha

There is good evidence for the use of topical capsaicin in many chronic pain conditions but only limited data showing symptomatic relief in osteoarthritis.

There are four small randomised controlled trials comparing capsaicin with placebo in patients with osteoarthritis. The mean reduction in pain was 33% with a number needed to treat (NNT) of four (95% CI). However the follow up period was generally short (maximum nine weeks) and the distribution of joints studied varied between hip, knee, shoulder and hand.

Despite the paucity of evidence eight out of nine international guidelines recommend the use of capsaicin as an adjunct in the treatment of osteoarthritis. Treatment is safe but 40% of patients are troubled by local burning, stinging or erythema.

Reference

Zhang W, Li Wan Po A. The effectiveness of topically applied capsaicin. A meta-analysis. Eur J Clin Pharmacol 1994;46:517–522.

Metformin

Dear bpac,
In the correspondence section of BPJ 16, the editors response to the query about metformin and folate states that chronic therapy with metformin is associated with decreased absorption of vitamin B12. I thought that just low B12 levels had been associated with metformin therapy, and didn't know that the mechanism of reduced B12 levels associated with metformin had

been elucidated. Can you provide a reference that shows reduced absorption to be the mechanism of the metformin-associated low B12 levels?

Pharmacist, Palmerston North

Although the precise mechanism by which metformin reduces serum B12 concentrations remains unknown, an effect on gastrointestinal absorption seems most likely. Although, as the correspondent states, this remains an association rather than an established causal mechanism. Initially B12 malabsorption was attributed to metformin induced changes in GI motility and gut bacterial flora, but these theories have recently been discounted. Alternatively, metformin may reduce the absorption of vitamin B12 by reducing the availability of calcium ions which are required to facilitate the absorption of the B12-intrinsic factor complex.

References cited in:

Ting RZ et al. Risk factors of vitamin B12 deficiency in patients receiving metformin. Arch Int Med; 2006 (166): 1975-9.

Aspirin in children

Dear bpac,

In your correspondence item about gargling with aspirin in BPJ 16, I note that it says that aspirin is not recommended in children under 16 years. I thought that aspirin was not recommended in children under 12 years old. Is there new evidence to show that 13–16 year olds are also at significantly increased risk of Reye's Syndrome from aspirin, compared with those older than 16 years?

Pharmacist, Palmerston North

Aspirin is not recommended for children due to an association with Reye's syndrome. In the UK, prior to 1986 an average of nine cases of Reye's syndrome per year were associated with aspirin used in children aged under 12. Aspirin was subsequently banned in children aged under 12 and the condition virtually disappeared in this age group.

However, from 1986 – 2002 occasional reports continued to appear in children aged over 12 including a fatal reaction in a 13 year old girl. As a result, the UK Medicines Control Agency recommended that children under 16 should not be given aspirin because of its links to the syndrome.

These recommendations have been adopted by other countries and it is also the current recommendation in the BNF for children.

It would appear that the recommendations were not changed in some countries including New Zealand where the current datasheets for aspirin preparations still carry the under 12 warning. These differences are probably based on the variable opinions of national drug regulatory authorities in the context of a very rare and unlikely event. Our research identified the under 16 recommendation which although precautionary seems prudent given the availability of alternatives to treat fever in children.

Reference

McDonald S. Aspirin use to be banned in under 16 year olds. BMJ 2002;325:988

Available from: www.bmj.com/cgi/content/full/325/7371/988/c (Accessed October 2008)

We value your feedback. Write to us at: Correspondence, PO Box 6032, Dunedin or email: editor@bpac.org.nz