Key questions concerning paracetamol and NSAIDs for OA

The recent leader by Dr Courtney and Professor Doherty provides an excellent evidence based perspective on the treatment of the pain of osteoarthritis (OA) with paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs) and on the issues related to the appropriate use of these agents within the therapeutic armamentarium.1

Clearly, age is a risk factor for NSAID associated serious upper gastrointestinal (GI) adverse events. Because age is also the most powerful risk factor for OA, a disease for which NSAIDs are widely employed as symptomatic treatment, this presents a particular problem for the clinician. It is important to recognise, therefore, that, as pointed out by Courtney and Doherty, a variety of measures can be employed to permit a reduction in NSAID dose or withdrawal of NSAIDs in the elderly.

Courtney and Doherty raise the possibility that the absence of an antiplatelet effect of coxibs might be disadvantageous and that the antiplatelet effect of non-selective NSAIDs “...might be advantageous in patients with OA who predominantly are elderly with frequent comorbidity such as obesity and thus often at higher risk of cerebrovascular or ischaemic heart disease.” They note the increased incidence of myocardial infarction (MI) in the rofecoxib treatment arm of the VIGOR trial, relative to the naproxen arm. However, the published evidence does not permit the conclusion that any NSAID, other than aspirin, which has been shown to decrease the risk of MI by about 30%, will protect against MI, which has been shown to decrease the risk of MI by about 30%, will protect against

Rofecoxib may increase the risk of thrombotic events. Because age is also the most powerful risk factor for MI but that rofecoxib is similarly abrogated by aspirin use is unknown because patients taking aspirin were excluded from the VIGOR trial.

Furthermore, the recent study by Catella-Lawson et al suggests that the non-selective NSAID, ibuprofen, may inhibit the antiplatelet effect of aspirin.2 Maximal inhibition of serum thrombocyte B levels (an index of COX activity in the platelet) of platelet aggregation produced by a low dose of aspirin were blocked by a single daily dose of ibuprofen (400 mg) given two hours earlier. Similar results were obtained with multiple doses of ibuprofen, 400 mg three times a day, as commonly used in the treatment of OA pain. In contrast, concomitant administration of single doses of rofecoxib, a slow release formulation of diclofenac or paracetamol, 1000 mg, had no effect on aspirin pharmacodynamics. The inhibitory effects of multiple daily doses of ibuprofen were apparent even when subjects received aspirin before their morning dose of ibuprofen. This would suggest that for patients taking low dose aspirin who need an over the counter analgesic for their OA pain, paracetamol might be a better choice than ibuprofen.

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References

Authors’ reply
We are grateful to Dr Brandt for expanding on the issue of possible cardioprotection by certain NSAIDs and the interaction between aspirin and coxibs/NSAIDs. We fully concur with the argument that he presents.

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Reduction of jaw opening in giant cell arteritis

In the September issue of the journal, Nir-Paz et al described six patients who developed reduction in jaw opening in association with giant cell arteritis.3 These authors found that jaw claudication was the only symptom that was consistently present in these patients. Although the precise pathological mechanism underlying reduction in jaw opening is unknown, this symptom probably results, like jaw claudication, from partial failure in blood supply to masseter muscles. However, the value of jaw claudication as a harbinger of visual loss has been debated.4 We sought to determine, in a large series of patients with temporal (giant cell) arteritis, the prevalence and clinical associations of reduction in jaw opening.

Between January 1977 and August 2002, 222 consecutive patients were diagnosed as having temporal arteritis in the Department of Internal Medicine, Clinical, laboratory, and pathological data were recorded prospectively before treatment at the time of diagnosis in 217 patients (178 biopsy proven), using a specifically designed, comprehensive questionnaire. The following items pertaining to jaw-mouth-throat problems were included in the questionnaire: jaw claudication, reduction or difficulty in jaw opening, maxillary or tooth pain, lingual discomfort or ischaemia, sore throat, dysphagia, hoarseness, and dry cough. Various jaw-mouth-throat complaints were present in 126 patients, including typical jaw claudication in 80 (63%), reduction or difficulty in jaw opening in 45 (36%), maxillary pain in 28 (22%), sore throat in 27 (21%), dysphagia in 22 (17%), dry cough in 14 (11%), hoarseness in 11 (9%), lingual discomfort in 7 (6%), and multiple complaints in 60 (48%). Table 1 shows that reduction or pain in jaw opening was associated with pain over temples, occipitalgia, jaw claudication, and other
Table 1  Prevalence and clinical associations of reduction in jaw opening. Results are shown as No (%) unless indicated otherwise

<table>
<thead>
<tr>
<th>Patients with pain and/or reduction in jaw opening (n=45)</th>
<th>Patients without this problem (n=171)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td>75.6</td>
</tr>
<tr>
<td>Men</td>
<td>75.1</td>
</tr>
<tr>
<td>Acute onset of symptoms</td>
<td>13 (29)</td>
</tr>
<tr>
<td>Delay in diagnosis (days)</td>
<td>60 (35)†</td>
</tr>
<tr>
<td>Headache (temporal)</td>
<td>58 (10–350)</td>
</tr>
<tr>
<td>Occipitalgia</td>
<td>78 (4–360)</td>
</tr>
<tr>
<td>Temporal artery clinically abnormal</td>
<td>34 (77)†</td>
</tr>
<tr>
<td>Jaw claudication</td>
<td>81 (47)**</td>
</tr>
<tr>
<td>Multiple jaw-mouth-throat symptoms</td>
<td>27 (60)†</td>
</tr>
<tr>
<td>Permanent visual loss</td>
<td>52 (30)†</td>
</tr>
<tr>
<td>Rheumatic symptoms</td>
<td>31 (60)†</td>
</tr>
<tr>
<td>Constitutional symptoms</td>
<td>29 (60)†</td>
</tr>
<tr>
<td>Large artery involvement</td>
<td>14 (31)</td>
</tr>
<tr>
<td>Small artery involvement</td>
<td>5 (11)</td>
</tr>
<tr>
<td>Positive result of temporal artery biopsy</td>
<td>3 (6)</td>
</tr>
<tr>
<td>Mean (SD) erythrocyte sedimentation rate (mm/1st h)</td>
<td>88.8 (29.2)</td>
</tr>
<tr>
<td>Mean (SD) haemoglobin (mg/l)</td>
<td>99 (62)</td>
</tr>
<tr>
<td>Mean (SD) C reactive protein (mg/l)</td>
<td>94 (59)</td>
</tr>
<tr>
<td>Mean (SD) haemoglobin (g/l)</td>
<td>115 (23)</td>
</tr>
<tr>
<td>Mean (SD) platelet value (g/l)</td>
<td>113 (16)</td>
</tr>
<tr>
<td>Delay in diagnosis (days)</td>
<td>58 (10–350)</td>
</tr>
</tbody>
</table>
| Prevalence and clinical associations of reduction in jaw opening.

*p<0.05, **p<0.001. (†) test, exact Fisher’s test, or Mant-Whitney U test, as needed; † results not available for one patient; ‡ results not available for two patients.

References


Authors’ reply

We thank Nir-Paz et al for their interest in our article. The data they present show that the reduction in jaw opening and pain upon jaw opening is probably more prevalent in patients with giant cell arteritis (GCA) than the 6.8% trismus we observed in our series.1 One reason for the higher prevalence may be the prospective questionnaire specifically inquiring about reduction or difficulty in jaw opening. Nevertheless, it might be that the French patients with GCA they describe have different manifestations of the disease, as evidenced by a higher prevalence of jaw involvement (36% of the overall patients with GCA compared with 21% in cohorts reported from our country, Israel, and 24% from Spain).2

In the series presented by Nir-Paz et al (as in our series) the delay in diagnosis was shorter for patients with pain and/or reduction in jaw opening than in those without this problem (8.2 weeks vs 11 weeks). This fact might imply that patients with GCA with trismus symptoms had a more aggressive and extensive form of GCA. Furthermore, Gonzalez-Gay et al have reported that one of the predictors for permanent visual loss in a series of 239 patients with biopsy proven GCA is jaw claudication.3 We agree with Nir-Paz et al that jaw and throat signs (trismus among them) are very important to the diagnosis of GCA and should not be overlooked. Prevalence of the signs and measurements of jaw opening in series of patients with GCA from other geographical areas may further illuminate its prevalence, aetiology, and association with the severity of the disease.

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