Etoricoxib Caused Fewer GI Events Than Diclofenac in Arthritis Patients

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The cyclooxygenase-2 inhibitor etoricoxib caused fewer clinically important upper GI events than the traditional NSAID diclofenac in a large study designed to reflect the real-world experience of treating osteoarthritis and rheumatoid arthritis.

The Multinational Etoricoxib and Diclofenac Arthritis Long-Term Program (MEDAL) pooled the results of three large randomized clinical trials involving nearly 35,000 patients treated at 1,349 sites in 46 countries. Unlike in most clinical trials, subjects in the MEDAL program were enrolled in 46 countries. Unlike in most clinical trials, subjects in the MEDAL program were enrolled in 46 countries.

Progression of radiographic joint damage, as measured by changes from baseline in radiographic damage scores, was the study’s primary outcome, and the progression of functional disability as measured by change from baseline in the Stanford Health Assessment Questionnaire (HAQ) disability index was the secondary outcome. The outcome analyses included data collected between March 1996 and November 2005.

Of the 2,004 patients eligible for study inclusion, 545 were current smokers consuming, on average 16 cigarettes per day, with a mean past smoking exposure of 20.6 pack-years. Of the 545 smokers, 35 were characterized as heavy smokers with a reported average intake of 33 cigarettes per day and 27.7 years of smoking.

The smokers were predominantly younger males with shorter disease durations and less joint erosions at baseline, the authors reported. There were no significant differences between smokers and nonsmokers with respect to other important risk factors for disease progression, such as rheumatoid factor, seropositivity, antirheumatic therapy, glucocorticoid use, functional status, and educational level.

In both crude and adjusted models of radiographic progression, there was no evidence for more rapid progression among smokers than nonsmokers, according to the authors. “In the fully adjusted model, smoking status, ‘the evolution of HAQ scores did not differ significantly between smokers and nonsmokers,’ the authors wrote. “The smokers were predominantly younger males with shorter disease durations and less joint erosions at baseline, the authors reported. There were no significant differences between smokers and nonsmokers with respect to other important risk factors for disease progression, such as rheumatoid factor, seropositivity, antirheumatic therapy, glucocorticoid use, functional status, and educational level.”

There was an inverse dose-response effect for heavy smokers, compared with moderate smokers and nonsmokers. “Specifically, radiographic erosions evolved significantly more slowly in heavy smokers [average 1.21% in 2 years] compared to nonsmokers [2.86%]...”

Etoricoxib and diclofenac had similar efficacy against arthritis. Upper GI events, primarily uncomplicated ulcers, were significantly less frequent with etoricoxib than with diclofenac. This was true even in the observation, “the evolution of HAQ scores did not differ significantly between smokers and nonsmokers,” the authors wrote. "The smokers were predominantly younger males with shorter disease durations and less joint erosions at baseline, the authors reported. There were no significant differences between smokers and nonsmokers with respect to other important risk factors for disease progression, such as rheumatoid factor, seropositivity, antirheumatic therapy, glucocorticoid use, functional status, and educational level."

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Etoricoxib and diclofenac had similar efficacy against arthritis. Upper GI events, primarily uncomplicated ulcers, were significantly less frequent with etoricoxib than with diclofenac. There was no difference between the two drugs in rates of more severe complicated events reported Dr. Loren Laine and associates in the MEDAL program (Lancet 2007;369:465-73).

Significantly fewer patients taking etoricoxib discontinued treatment due to dyspepsia, compared with those taking diclofenac.

This study was sponsored by Merck Research Laboratories, which conducted the statistical analyses and was involved in data analysis, safety monitoring, and reporting.

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