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Etoricoxib

A Viewpoint by Juergen Steinmeyer

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Cyclo-oxygenase (COX)-2-selective NSAIDs were developed with the intention of reducing the unwanted adverse effects of NSAIDs, particularly those relating to the gastrointestinal (GI) system.[1] Based on results from the large US American Rheumatism Assocation Medical Information System (ARAMIS) database, the risk of a severe GI complication is increased 5.5-fold by therapy with non-selective NSAIDs. As a result of NSAID-induced gastric ulceration, bleeding or perforation, approximately 150 000 hospital days and up to 2000 NSAID-induced deaths are estimated annually for just one nation (Germany) alone.[1]

Etoricoxib is a novel dipyridinyl compound which exhibits marked inhibitory activity against COX-2. Using various cell and whole blood assays, the selectivity ratio of etoricoxib for COX-1/COX-2 was shown to be even higher than that of celecoxib or rofecoxib, two other recently introduced COX-2-selective inhibitors. Whether this higher selectivity of etoricoxib *in vitro* will confer therapeutic advantages remains to be clinically evaluated. However, to date, clinical studies have shown that etoricoxib is well tolerated and efficacious for treating the symptoms of osteoarthritis, rheumatoid arthritis, postoperative dental pain, acute gout, primary dysmenorrhoea and haemophilic arthropathy. The adverse effect profile of etoricoxib appears to be favourable with fewer GI perforations, ulcers and bleeding being reported compared to non-selective NSAIDs.

Unfortunately, little is known about the long-term efficacy and tolerability of etoricoxib. Regarding this aspect, it should also be mentioned that COX-2 is constitutively expressed for instance in the central nervous system, kidney, vascular endothelium and bone. Other unresolved questions include whether, how and the extent to which etoricoxib may affect the cardiovascular system, skin and articular cartilage. Nevertheless, there has been extensive phase III testing of etoricoxib, and although the results from many of these trials remain to be published, data collected to date have proven very promising. ▲

Reference

1. Steinmeyer J. Pharmacological basis for the therapy of pain and inflammation with nonsteroidal anti-inflammatory drugs. Arthritis Res 2000; 2 (5): 379-85