

Open-label, open-ended study of the safety of diclofenac sodium topical solution for management of osteoarthritis: characterization of gastrointestinal adverse events

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Purpose

Oral nonsteroidal anti-inflammatory drugs (NSAIDs) are effective for the treatment of osteoarthritis (OA), but their chronic use is associated with serious gastrointestinal (GI), cardiovascular, and potentially other systemic adverse events (AEs). Diclofenac sodium topical solution (TDiclo) has demonstrated efficacy similar to oral diclofenac (ODiclo) in randomized, double-blind, clinical trials in OA of the knee, with fewer GI AEs. The incidence of GI AEs occurring with TDiclo in patients in an office setting was analyzed using safety data from a Canadian compassionate-use treatment program of TDiclo for OA.

Method

In this multicenter, open-label, open-ended, compassionate-use, Phase 3 study, patients with physician-diagnosed OA were instructed to apply 5 drops (small joint, eg, knuckle), 20 drops (medium joint, eg, wrist), or 40 drops (large joint, eg, knee) of TDiclo to the affected joint 4 times daily in an uncontrolled, real-world setting. Follow-up safety assessments were scheduled at one month, 3 months, 6 months, and 12 months, and yearly thereafter. At each visit, patients were asked open-ended questions regarding the onset and nature of any AE that occurred since the last visit. It was at the patient's discretion whether to contact the investigator at the onset of an AE or wait until the next visit.

Results

A total of 4213 patients were evaluated. The duration of exposure to TDiclo extended over 6 months to 12 months in 12.4% and ≥ 12 months in 19.8%. A GI AE occurred in 35 (0.8%) patients; the most frequently reported were dyspepsia (0.4%), nausea (0.2%), and diarrhea (0.1%). A GI AE was listed as a reason for study discontinuation in 23 patients (0.5%). None of the GI AEs that occurred during the study were deemed by the investigator to be related to TDiclo treatment.

Conclusions

In an uncontrolled office-practice setting, the occurrence of GI AEs in patients receiving TDiclo was low. No individual GI AE was reported in $>0.4\%$ of patients, and few patients discontinued therapy because of these events. The results of this open-label study demonstrate that TDiclo is a well-tolerated therapeutic option for those patients who wish to reduce their likelihood of experiencing the GI AEs that are commonly associated with oral NSAIDs.