Ulcerative colitis following introduction of zafirlukast and corticosteroid withdrawal in severe asthmatic patient

To the Editor:

The leukotriene (LT) receptor antagonist acolate (zafirlukast) has recently been approved for use in the US and most European countries as an oral preventative, as well as a chronic treatment, for asthma in both adults and children aged \( \geq 12 \) yrs [1, 2]. The drug specifically blocks the docking of LT molecules to the cysteinyl leukotriene (CysLT) \( \text{R} \) subtype on airway smooth muscle cells and represents the first really new class of anti-asthmatic drugs to be introduced in 20 yrs [3]. Although LT receptor antagonists are generally well tolerated and side-effects associated with these drugs are rare, several cases of an eosinophilic disorder reminiscent of the Churg-Strauss syndrome have recently been reported among patients taking zafirlukast [4, 5] and montelukast (post-marketing informational letter). Characteristically, these patients were on a high-dose of inhaled or oral corticosteroid therapy, and were able to reduce the dose as a beneficial consequence of the effects of the LT antagonists. However, it is unclear whether the Churg-Strauss syndrome is a result of the reduction of corticosteroid dose or an idiosyncratic effect of LT agonists.

This article reports the case of a 65 yr old male Caucasian patient with severe asthmatic asthma, who experienced an exacerbation of ulcerative colitis after initiation of zafirlukast treatment. The patient presented with a 25-yr history of ulcerative colitis after initiation of zafirlukast and corticosteroid withdrawal, the patient began experiencing lower abdominal cramps accompanied by up to 10 attacks of bloody diarrhea per day. A colonoscopy confirmed the clinically-suspected diagnosis, and revealed an exacerbation of the ulcerative colitis. Consequently, while zafirlukast therapy was continued, resumption of the oral prednisolone therapy (5–7.5 mg) led to a gradual resolution of his bowel symptoms.

To the authors knowledge, this is the first report of an inflammatory bowel disease deteriorating under treatment with zafirlukast. A small number of cases of the Churg-Strauss syndrome have recently been reported among patients with severe asthma, in whom corticosteroids were either reduced or discontinued [4, 5]. The case reported herein parallels these reports, in as much as the discontinuation of chronic steroid therapy in a patient with severe asthmatic asthma res-ulted in the recurrence of a co-existing immunologic disorder, which previously may have been controlled by the anti-inflammatory asthma treatment. While the underlying pathomechanism of zafirlukast-associated exacerbation of ulcerative colitis remains to be elucidated, this observation has important clinical implications for physicians prescribing zafirlukast, and possibly other leukotriene receptor antagonists, to patients with corticosteroid-dependent asthma.


Pneumology, Medical Clinic IV, Friedrich-Schiller-University, D-07740 Jena, Germany. Fax: 49 3641 939325.

References