Restless legs syndrome in patients with Crohn's disease

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A recent prospective multicenter study by Weinstock *et al* indicated that restless legs syndrome (RLS) is commonly found in patients with Crohn's disease (CD), with incidence and prevalence rates of 42.7% and 30.2% respectively [1]. This disease entity, even though it has a great impact on both sleep disturbances and on quality of life, has not yet been thoroughly investigated in patients with CD.

RLS is a common, but significantly underestimated and misdiagnosed, neurological disorder affecting about 5-10% of the general population in Europe and the United States [2]. It is mainly characterized by a sense of discomfort and an urge to move focused on the legs; the diagnosis can be set with the standard diagnostic criteria that have been established from the International RLS Study Group since 1995 (Table 1).

Although iron deficiency anemia is considered as a secondary cause of RLS, Weinstock *et al* found that current iron deficiency in patients with CD was not related with a higher incidence of RLS symptoms. However, documented iron deficiency in the past was significantly related with the occurrence of RLS symptoms at the time of the study [1]. Inadequate iron stores, with a ferritin level below 50 mcg/L,

Table 1 The essential diagnostic criteria of the restless legs syndrome [7]

1)	An urge to move the legs, usually accompanied or caused by uncomfortable and unpleasant sensations in the legs (or other body parts, in addition to the legs)
2)	The urge to move or unpleasant sensations begin or worsen during periods of rest or inactivity (such as lying down or sitting)
3)	The urge to move or unpleasant sensations are partially or totally relieved by movement (walking or stretching), at least as long as activity continues
4)	The urge to move or unpleasant sensations are worse in the evening or at night than during the day, or only occur in the evening or night

have been associated with a greater intensity of RLS symptoms and subsequent sleep disturbances in a retrospective study of patients with RLS by Sun *et al* [3].

Apart from iron deficiency anemia, both CD-related polyneuropathy [4] and bacterial overgrowth [1] have been hypothesized to be involved in the pathogenesis of RLS in patients with CD as well as micro-element deficiencies. In patients with irritable bowel syndrome Weinstock *et al* have found that small intestinal bacterial overgrowth has been related with RLS symptoms and a significant RLS improvement has been observed in the subgroup that was treated with a long-term antibiotic therapy [5,6]. RLS amelioration has also been reported in 44.5% of CD patients with overall symptom improvement, further supporting the relation between RLS and CD [1].

In conclusion, gastroenterologists treating patients with CD should be aware of the high frequency of CD and RLS comorbidity, as RLS is very often underdiagnosed. Treatment of the underlying inflammatory bowel disease, serum ferritin level monitoring with necessary iron supplementation and adequate control of the intestinal bacterial overgrowth could be the initial steps in the management of CD patients with RLS.

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