Zinc supplementation tightens "leaky gut" in Crohn's disease.

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Abstract

OBJECTIVES
Small intestinal permeability is often increased in patients with Crohn's disease and may be pathogenic for clinical relapses. No effective prophylactic treatment is available for these patients. The aim of this study was to ascertain whether zinc supplementation may improve intestinal permeability.

METHODS
We studied 12 patients with quiescent Crohn's disease who had been in remission for at least 3 months and had increased intestinal permeability on two separate occasions within the last 2 months. Patients received oral zinc sulfate supplements (110 mg three times a day) for 8 weeks and were followed-up for 12 months thereafter to monitor relapses.
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RESULTS
We found that the lactulose/mannitol ratio was significantly higher before supplementation than after (0.041 +/- 0.003 versus 0.026 +/- 0.005). During follow-up, 10 patients had normal intestinal permeability and did not relapse; of the remaining two who had increased intestinal permeability, one relapsed.

CONCLUSIONS
Our findings show that zinc supplementation can resolve permeability alterations in patients with Crohn's disease in remission. Improving intestinal barrier function may contribute to reduce the risk of relapse in Crohn's disease.
