

Vitamin D deficiency puts IBD patients at greater risk of osteoporosis

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Vitamin D deficiency puts patients with Inflammatory Bowel Disease (IBD) at greater risk of osteoporosis, osteopenia and an overall higher rate of abnormal bone density, according to the results of a new study unveiled today at the American College of Gastroenterology's (ACG) 75th Annual Scientific meeting in San Antonio, Texas.

The study, "[Vitamin D Deficiency](#) and Abnormal DEXA Scans in Inflammatory Bowel Disease Patients," found that of the 161 IBD patients in the cohort, reduction in bone density with a diagnosis of osteoporosis or osteopenia was found in 22 percent of these patients, 50 percent of whom were under age 50.

IBD is a fairly common condition affecting more than one million people in the United States. The number of IBD patients is split equally between those with Crohn's disease and those with ulcerative colitis. Children and adults with IBD between the ages of 10 and 70 participated in the prospective study between 2008 and 2010. Vitamin D deficiency was defined as Vitamin D 25-hydroxy levels less than 30ng/mL. DEXA scan results were considered abnormal if osteopenia and osteoporosis were found.

"IBD patients with an abnormal bone density exam had a significantly higher rate of Vitamin D deficiency than those who had normal DEXA scans," said Dr. Bincy P. Abraham, Assistant Professor of Medicine, Baylor College of Medicine and Director, Baylor Clinic [Inflammatory Bowel Disease](#) Program.

Dr. Abraham, who presented the findings, said that previous research has suggested a high prevalence of osteoporosis and overall abnormal bone density in IBD patients that is likely caused by corticosteroid use and excess of inflammatory cytokines, as well as from calcium and Vitamin D malabsorption.

"We aimed to determine the association between Vitamin D deficiency and abnormal bone density in IBD patients," said Dr. Abraham.

According to the study, Crohn's disease patients with Vitamin D deficiency were four times more likely to have a higher rate of abnormal bone density exams compared to patients with ulcerative colitis.

"This finding is not surprising since Crohn's disease usually affects the small intestine, which is the part of the gut that absorbs the most nutrients," said Dr. Abraham. "The widespread malabsorption in Crohn's disease does not occur in ulcerative colitis, which involves only the colon."

However, both Crohn's disease and ulcerative colitis patients diagnosed with osteoporosis had a significantly higher rate of Vitamin D deficiency irrespective of prednisone intake, according to the study.

"Abnormal bone density was relatively high among our IBD patients with Vitamin D deficiency irrespective to age, gender or corticosteroid use that would place them at a significantly higher risk of having an abnormal DEXA result," said Dr. Abraham. "It remains important for those caring for IBD patients to evaluate for Vitamin D nutritional deficiency and for its potential consequence of osteopenia or [osteoporosis](#)."

Provided by American College of Gastroenterology

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