Many GI Cancer Patients Low on Vitamin D

BY DAMIAN MCNAMARA

ORLANDO — Vitamin D deficiency is highly prevalent among patients with gastrointestinal cancers, but even a short course of oral supplementation significantly raises vitamin D levels, according to a retrospective study presented as a poster at the annual meeting of the American Society of Clinical Oncology.

Colleen Gilmore, R.N., and her colleagues studied the charts of 100 men and 102 women treated for a variety of gastrointestinal cancers from December 2007 to September 2008 at Washington University in St. Louis. She described the equal sex distribution in the study as important.

"We always look at bone health with women," Ms. Gilmore said. But vitamin D deficiency "is just as prevalent in men in the cancer and general populations."

At baseline, the prevalence of vitamin D deficiency was nearly 88%, including 61% of patients who met criteria for

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moderate to severe deficiency. Therefore, routine evaluation of vitamin D levels in patients with gastrointestinal cancers is warranted, said Ms. Gilmore, a researcher at Washington University's Siteman Cancer Center. She had no financial disclosures.

In all, 92 patients were reevaluated following 8-12 weeks of oral vitamin D supplementation. The percentage of patients with any vitamin D deficiency decreased from 91% to 58% in this group, with moderate to severe deficiency falling from 72% to 13%. There were no significant differences in response by sex, age (65 years or younger vs. older than 65), or tumor type.

The response to vitamin D supplementation was quickest and most striking among black patients, compared with white patients, Ms. Gilmore said in an interview. "They responded the best to oral supplements," she said. "The African Americans normalized" their vitamin D levels much more quickly.

The researchers identified a subgroup of patients—those who underwent a gastrectomy or a Whipple procedure for cancer resection—who were at particularly elevated risk. "These patients had a more persistent need for supplementation," Ms. Gilmore said. Closely monitor serum vitamin D levels in these patients, and consider a higher maintenance dose of vitamin D supplementation, she advised.

The study included 98 patients with colorectal cancer and 41 with pancreatic cancer. Other malignancies included neuroendocrine cancer in 18 patients, biliary in 16, gastric in 9, gastrointestinal stromal

tumor in 9, hepatocellular carcinoma in 4, and other malignancies in 7.

Vitamin D deficiency was defined as serum 25(OH)D levels less than 30 ng/mL. Mild deficiency was 21-30 ng/mL, moderate was 10-20 ng/mL, and severe deficiency was less than 10 ng/mL.

Participants with a baseline serum vitamin D level of 20 ng/mL or less received prescription vitamin D (50,000 IU) every week for 12 weeks. Patients

with a serum baseline level of 21-50 ng/mL received 50,000 IU every week for 8 weeks, and then had their serum levels rechecked. If they remained deficient, they continued the same regimen for another 4 weeks. If their serum levels were greater than 50 ng/mL, they switched to 1,000 IU per day of over-the-counter vitamin D supplements.

Because the study was a retrospective chart review, there were no compliance

data, a potential limitation, Ms. Gilmore noted. She added that in the future, prospective studies that assess vitamin D deficiency and supplementation could improve supportive care in patients with GI malignancies. She would like to study the effect of vitamin D supplementation by stage of GI cancer and chemotherapy regimen, and to assess quality of life. "Are we impacting their lives by giving them this supplementation?" she asked.

