VITAMIN D MAY HELP PREVENT A COMMON SIDE EFFECT OF ANTI-CANCER IMMUNOTHERAPY

JUNE 22, 2020 - New research indicates that taking vitamin D supplements may help prevent a potentially serious side effect of a revolutionary form of anti-cancer therapy. The findings are published early online in CANCER, a peer-reviewed journal of the American Cancer Society (ACS).

Immune checkpoint inhibitors help the immune system recognize and combat cancer cells, and although these treatments have helped many patients and have prolonged lives, they can cause side effects such as colitis, an inflammatory reaction in the colon. "Immune checkpoint inhibitor-induced colitis can limit the use of such life-saving drugs leading to discontinuation of treatment. While it is one of the most common and severe adverse events of immunotherapy, there is a lack of understanding of the risk factors that could be modified to prevent colitis," said Osama Rahma, MD, of the Dana-Farber Cancer Institute and Harvard Medical School, in Boston.

Dr. Rahma and his colleagues conducted a study that examined whether taking vitamin D supplements might reduce the risk of colitis in patients receiving immune checkpoint inhibitors to treat their cancer. The team chose this strategy because previous studies have found that vitamin D may affect the immune system in cases of autoimmune disorders and inflammatory bowel disease.

The study included information on 213 patients with melanoma who received immune checkpoint inhibitors between 2011 and 2017. Thirty-seven (17 percent) of these patients developed colitis. Sixty-six patients in the study (31 percent) took vitamin D supplements before starting treatment with immune checkpoint inhibitors.

Patients who took vitamin D had 65 percent lower odds of developing colitis, after adjustments for confounding factors. These findings were validated in another group of 169 patients, of whom 49 (29 percent) developed colitis. In this validation group, use of vitamin D was linked with 54 percent lower odds of developing colitis.

"Our findings of a link between vitamin D intake and reduced risk for colitis could potentially impact practice if validated in future prospective studies," said Dr. Rahma. "Vitamin D supplementation should be tested further to determine if it could be a safe, easily accessible, and cost-effective approach towards preventing immunotherapy's gastrointestinal toxicity and extending the effectiveness of immune checkpoint inhibitor treatment in cancer patients."

Full citation: *Vitamin D intake is associated with decreased risk of immune checkpoint inhibitor-induced colitis." Shilpa Grover, Michael Dougan, Kevin Tyan, Anita Giobbie-Hurder, Steven M. Blum, Jeffrey Ishizuka, Taha Qazi, Rawad Elias, Kruti B. Vora, Alex B. Ruan, William Martin-Doyle, Michael Manos, Lauren Eastman, Meredith Davis, Maria Gargano, Rizwan Haq, Elizabeth I. Buchbinder, Ryan J. Sullivan, Patrick A. Ott, F. Stephen Hodi, and Osama E. Rahma. CANCER; Published Online: June 22, 2020 (DOI: 10.1002/cncr.32966).*