# Vitamin D deficiency worsens outcomes with B-cell lymphoma

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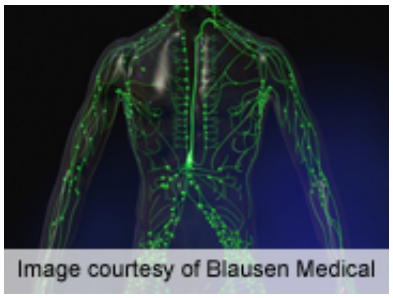


(HealthDay)—Vitamin D deficiency (VDD) contributes to worse outcomes in elderly patients with diffuse large B-cell lymphoma (DLBCL) treated with rituximab, according to a study published online Aug. 18 in the *Journal of Clinical Oncology*.

Jörg Thomas Bittenbring, M.D., from Universitätsklinikum des Saarlandes in Germany, and colleagues examined the impact and mechanisms of VDD in patients with DLBCL. Chemoluminescent immunoassays were used to evaluate 359 pretreatment 25-hydroxyvitamin D3 serum levels from the RICOVER-60 study (Six Versus Eight Cycles of Biweekly CHOP-14 With or Without Rituximab) and 63 from the RICOVER-noRTh study (an amendment to the RICOVER-60 study).

The researchers found that RICOVER-60 patients treated with rituximab with VDD (?8 ng/mL) had three-year event-free survival (EFS) of 59 percent and three-year overall survival (OS) of 70 percent, while those with vitamin D levels >8 ng/mL treated with rituximab had EFS and OS of 79 and 82 percent, respectively. In multivariate analysis adjusting for International Prognostic Index risk factors, these differences remained significant, with hazard ratios of 2.1 (P = 0.008) for EFS and 1.9 (P = 0.040) for OS. In all seven individuals with VDD, there were significant increases in rituximab-mediated cellular cytotoxicity (RMCC; P

"That VDD impairs RMCC and substitution improves RMCC strongly suggests that vitamin D substitution enhances rituximab efficacy," the authors write.

One author disclosed financial ties to the pharmaceutical industry.

**More information:** Abstract
Full Text (subscription or payment may be required)