

Mutation ID'd in Waldenstrom's macroglobulinemia

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(HealthDay)—MYD88 L265P is a common, recurring mutation in patients with Waldenström's macroglobulinemia, according to a study published in the Aug. 30 issue of the *New England Journal of Medicine*.

Steven P. Treon, M.D., Ph.D., from the Dana Farber Cancer Institute in Boston, and colleagues performed whole-genome sequencing of [bone marrow](#) lymphoplasmacytic lymphoma (LPL) cells in 30 patients with Waldenström's macroglobulinemia. The findings were validated using Sanger sequencing in an expanded cohort of patients with LPL, those with other B-cell disorders that have some of the same features as LPL, and healthy donors.

The researchers identified a somatic variant (T→C) in LPL cells at position 38182641 at 3p22.2 among the patients with Waldenström's macroglobulinemia. This variant was seen in all samples from 10 patients with paired [tissue samples](#) and in 17 of 20 samples from patients with unpaired samples. The variant predicted an alteration in an amino acid (L265P) in *MYD88*, which led to IRAK-mediated NF-κB signaling. MYD88 L265P was identified using Sanger sequencing in tumor samples from 49 of 54 patients with Waldenström's macroglobulinemia and in all three patients with non-[immunoglobulin](#) M (IgM)-secreting LPL. In paired normal tissue samples from patients with Waldenström's macroglobulinemia or non-IgM LPL and in [B cells](#) from healthy donors, MYD88 L265P was absent.

"MYD88 L265P is a commonly recurring mutation in patients with

Waldenström's macroglobulinemia that can be useful in differentiating Waldenström's macroglobulinemia and non-IgM LPL from B-cell disorders that have some of the same features," Treon and colleagues conclude.

Several authors are employees of Complete Genomics.

More information: [Full Text \(subscription or payment may be required\)](#)

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