

Clonal Hematopoiesis in Patients with Waldenstrom's Macroglobulinemia

Clonal hematopoiesis (CH) refers to the age-related accumulation of somatic mutations in blood cells, occurring even in individuals without circulating blood cancers. The existence of CH has been linked to a reduced overall survival rate, elevated risk of subsequent myeloid malignancies, and non-malignant inflammatory conditions like cardiovascular disease and chronic obstructive pulmonary disease. In patients with lymphoid malignancies, the concurrent presence of CH correlates with negative outcomes. In non-Hodgkin lymphoma (NHL) and multiple myeloma (MM), CH is not only associated with decreased overall survival but also increases the risk of developing secondary myeloid leukemias, particularly when autologous transplantation is involved. In patients with Waldenstrom's Macroglobulinemia (WM), CH was found to be associated with increased risk of progression from precursor states to symptomatic disease. CH is frequently observed in patients who have been treated with chemotherapy, particularly in those with relapsed or refractory disease who have been treated with multiple cycles of cytotoxic agents. As a result, CH is commonly found in patients with relapsed and refractory hematologic malignancies and may significantly influence both the toxicity and effectiveness of subsequent treatments. Thus, the presence of CH has implications for the diagnosis, monitoring, and treatment of patients with WM.