Campath-1H for treatment of Waldenstom's Macroglobulinemia (WM).

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Campath-1H is a humanized, IgG1, monoclonal antibody that recognizes the glycoprotein CD52. This molecule is abundantly expressed on all lymphocytes, but not on hematopoietic stem cells. Currently Campath-1H is approved for treatment of chronic lymphocytic leukemia (CLL) patients who have failed both alkylating agents and Fludarabine therapy. Recent data demonstrates a significant survival advantage for CLL patients who respond to Campath-1H. Administration of Campath-1H leads to the rapid depletion of all CD52-expressing cells triggered by antibody-dependent cellular cytotoxicity, complement-mediated lysis, and apoptosis. The broad spectrum of CD52 lymphocyte expression raised interest in the potential use of Campath-1H for the treatment of other hematologic malignancies. Flow cytometric analysis of tumor cells isolated from patients with WM demonstrated that 77% of patients had expression of CD52 on the majority of their tumor cells. Among those patients who express CD52, the level of expression was extremely high. In addition, off trial use of Campath-1H in a limited number of WM patients yielded therapeutic responses. Combined these data suggest that CD52 may be an excellent target for therapy in WM. In order to test this hypothesis, up to 27 patients with refractory WM will be enrolled in a Phase II trial of Campath-1H. Patients will receive 30 mg TIW by IV administration for 6 weeks and will be evaluated for response. Patients demonstrating a partial response or stable disease will continue in treatment for an additional 6 weeks of therapy. This study represents the first multicenter trial of Campath-1H for the treatment of WM. If responses are noted then future trials combining Campath-1H with other monoclonal antibodies or cytokines will be examined.