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Clinical responses to sildenafil in Waldenstrom's macroglobulinemia.

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Waldenstrom's macroglobulinemia (WM) is an incurable B-cell malignancy. Interestingly, an unusual response activity was observed in 5 patients with WM that appeared related to their use of sildenafil, a phosphodiesterase inhibitor used to treat erectile dysfunction. One patient demonstrated a complete remission, and 4 other patients demonstrated less dramatic, but also unexpected, responses associated with sildenafil. In view of these findings, WM tumor cells were culture-sorted with sildenafil at pharmacologically achievable levels and apoptosis was demonstrated in tumor cells from all 5 patients. These studies suggest that sildenafil may be an active agent in the treatment of WM.