

AL amyloidosis associated with IgM monoclonal gammopathies

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AL amyloidosis is caused by monoclonal immunoglobulin light-chains able to misfold and aggregate into insoluble fibrils that deposit in tissues. This process causes organ dysfunction, but effective therapy can change the natural history of the disease and prolong survival.² AL amyloidosis is a rare complication of IgM monoclonal gammopathy: only 1% of patients with an IgM monoclonal gammopathy develop amyloidosis and approximately 6% of patients with AL amyloidosis have an IgM monoclonal protein. Nevertheless, the possibility that patients with IgM monoclonal components develop amyloidosis, a disease leading to multiorgan failure, should be kept in mind, to allow prompt diagnosis and treatment. We compared 60 patients with IgM associated AL amyloidosis to 808 patients with non IgM AL amyloidosis. In IgM patients the pattern of organ involvement was not significantly different from that of other patients, the kidney being involved in 70% of subjects, the heart in 53%, the peripheral and/or autonomic nervous system in 33% and the liver in 17%. However, IgM patients had a significantly higher frequency of nodular lung (10% vs. 2%) and lymph node (25% vs. 2%) involvement, indicating that the light chains produced by IgM clones tend to deposit locally. IgM patients survived longer, though not significantly. The only 2 independent prognostic markers at diagnosis were N-terminal pro natriuretic peptide type-B, like in the overall AL patient population, and serum albumin concentration, like in patients with Waldenström macroglobulinemia. Hematologic response to treatment significantly improved survival. Treatment schedules commonly used in Waldenström macroglobulinemia can be applied to IgM associated AL amyloidosis. The combination of melphalan and dexamethasone is effective also in patients with IgM AL amyloidosis. IgM associated AL amyloidosis is a distinct clinical entity and prospective studies are warranted to clarify the mechanisms underlying its peculiarities and improve patients care.