

## **Treatment Options for Amyloid related Disease in WM**

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IgM Amyloidosis Immunoglobulin M associated AL is a rare but distinct entity. It occurs in 4.7% of patients with AL. Previous reports suggest that lymph node involvement is more common and urinary protein loss is less prevalent. Among 434 AL patients, 5% or 22 had an IgM monoclonal protein. The 5% with IgM amyloidosis compares with 1% IgM myeloma and 15% with IgM monoclonal gammopathy of undetermined significance. Eleven of the AL patients had IgM  $\lambda$  monoclonal proteins, 5 had IgM  $\kappa$  monoclonal proteins, 2 had an IgM  $\kappa$  and  $\lambda$ , 2 had bclonal IgM-  $\kappa$ /IgG-  $\lambda$ , 1 had bclonal IgM-  $\lambda$  /IgA-  $\lambda$ , and 1 had bclonal IgM-  $\lambda$  /IgG-  $\lambda$ . The patients with IgM amyloidosis were a median of six years older than non-IgM patients ( $p < 0.001$ ) and had a 32% incidence of neuropathy compared with non-IgM 11% ( $p < 0.01$ ). Patients with IgM amyloidosis had a statistically significantly lower troponin T ( $p < 0.03$ ), NT-Pro BNP ( $p < 0.01$ ), and intraventricular septal thickness ( $p = 0.07$ ). The survival of patients with IgM amyloidosis was 77.6 months, and this is not different from those with non-IgM amyloidosis whose median overall survival is 96.5 months ( $p = 0.3$ ). There continues to be a  $\lambda$  preponderance in IgM amyloidosis. We speculate that IgM amyloid proteins have a greater affinity for peripheral nervous system tissues and a lower affinity for cardiac tissues. Response analysis showed no difference in response rates to high-dose therapy, 86 versus 75% ( $p = 0.27$ ). Patients with IgM amyloidosis tended to have a lower level of the involved free light chain compared with those with non-IgM amyloidosis, 4.1 versus 15.5 mg/dL ( $p = 0.0002$ ) suggesting IgM-associated amyloidosis has a lower number of circulating unbound light chains.