Clinical Outcomes of Newly Diagnosed Multiple Myeloma Patients with Elevated Lactate Dehydrogenase Who Underwent Autologous Hematopoietic Stem Cell Transplantation

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**Background:** Multiple Myeloma (MM) is a malignant disorder of clonal plasma cells. Elevated Lactate Dehydrogenase (LDH) has been shown to be an independent prognostic marker associated with shorter survival.

**Methods:** Utilizing data from the Multiple Myeloma Research Foundation (MMRF) CoMMpass database, we identified patients with baseline LDH values (>468 microkatal/liter). We compared baseline characteristics and outcomes with autologous stem cell transplant (ASCT), based on LDH as categorical variable.

**Results:** We identified 871 patients with NDMM who had baseline LDH values. 385 patients underwent ASCT (High LDH N=44; Normal LDH N=341). Those with high LDH had an inferior OS when compared with those with normal LDH (median OS 800.5 vs 878.8 days, p=0.019).

**Conclusion:** Elevated LDH was confirmed as a poor prognostic factor in MMRF CoMMpass cohort. ASCT did not abrogate the poor prognosis associated with high LDH. Since clinical outcomes remain poor despite the use of novel effective therapies and early consolidation with AHCT in patients with high baseline LDH, this group represents an unmet need for alternative therapy.