



## Heart Failure and Cardiomyopathies

### REDUCED SURVIVAL IN LAMBDA PREDOMINANT CARDIAC AL AMYLOIDOSIS PATIENTS AWAITING ORTHOTOPIC HEART TRANSPLANT

Poster Contributions

Hall C

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Authors: *Sara Tabatabai, Emily Niehaus, Nitasha Sarswat, James R. Stone, Mathew Maurer, Ronald Witteles, Jerry Estep, David Baran, Mark Zucker, Guiseppe Feltrin, David Seldin, Marc Semigran, Massachusetts General Hospital, Boston, MA, USA*

**Background:** Heart transplant (HT) followed by autologous stem cell transplant (ASCT) is an option for end-stage heart failure (HF) due to AL amyloidosis. Patients waitlisted for HT have poor survival while awaiting a donor organ. In amyloid patients without HF, those with lambda predominance have worse outcomes than those that are kappa predominant. It is not known if survival to transplant of waitlisted cardiac amyloid patients varies based on light-chain subtype.

**Methods:** We utilized a multinational database from seven transplant centers, which includes demographic, clinical, hemodynamic and therapeutic strategies for patients with AL amyloid with cardiac involvement. Light chain predominance was determined by immunostaining of endomyocardial biopsy specimens or by relative serum light chain levels.

**Results:** Of the 89 patients waitlisted, 16% were kappa light-chain predominant and 84% were lambda light-chain predominant. Lambda predominant patients had higher mortality (42% vs. 0%,  $p=0.006$ ) or a trend towards a longer time to HT ( $55 \pm 12$  vs.  $31 \pm 10.7$  days,  $p=0.14$ ). Overall, time to transplant or death was longer in lambda predominant patients than kappa predominant (Figure:  $p=0.04$  corrected for BMI, age, race, sex, LVEF, percentage of plasma cells in the bone marrow, and FLC difference).

**Conclusions:** Lambda-predominant cardiac amyloid patients have greater mortality than kappa predominant patients awaiting donor organ and a trend towards longer times to HT.

