HLA-E mismatch is associated with better hematopoietic stem cell transplantation outcome in acute leukemia patients

509 adult patients with acute leukemia receiving allogeneic HSCT

10/10 allele level HLA-A, -B, -C, -DRB1, -DQB1 matched grafts

HLA-E high resolution genotyping of 509 patient-donor pairs

Endpoints
- overall survival
- disease free survival
- relapse incidence
- non-relapse mortality

HLA-E mismatch  Improved HSCT outcome

- univariate analysis (53% vs 38%, p=0.002, 5year OS)
- multivariate analysis (HR=0.63, CI 95%=0.48-0.83, p=0.001)

Effect in patients with advanced disease (n=120)

- univariate analysis (50% vs 18%, p=0.005, 5year OS)
- multivariate analysis (HR=0.40, CI 95%=0.22-0.72, p=0.002)

Tsamadou et al., Haematologica, 2017