mofetil (MMF) are superior to micro-emulsion cyclosporine A and azathioprine respectively [6,7]. However, data regarding the use of Tac and MMF in EGPA is scarce.

**Conclusion.**— EGPA should not be a limitation to OHT, which can be performed with respect to the ISHLT guidelines. There is no optimal immunosuppressive strategy. Arrhythmia is a burden. Further data is needed.

**References**


**A6 Cluster analysis to explore subclassification of eosinophilic granulomatosis with polyangiitis (Churg-Strauss)**

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**Introduction.**— Results from descriptive studies of eosinophilic granulomatosis with polyangiitis (EGPA) suggest distinct clinical subclasses that may be determined by anti-neutrophil cytoplasmic antibody (ANCA) status. We used hierarchical cluster analysis to explore whether EGPA could be subclassified.

**Methods.**— We used standardized retrospective data for a cohort with clinical diagnoses of EGPA followed in four tertiary referral centers. Hierarchical cluster analysis involved the Ward method with 12 input variables assessed at diagnosis: constitutional symptoms; mucocutaneous, ophthalmologic, ear, nose and throat, cardiovascular, gastrointestinal, renal, and central nervous system involvement; peripheral neuropathy; non-fixed lung infiltrates; and ANCA positivity. The resulting clusters were described by their most prominent summary characteristics. The distribution of clinical variables was analyzed by ANCA status with chi-square test.

**Results.**— The dataset included 262 EGPA cases diagnosed between 1984 and 2012. ANCs were detected in 30.9% of cases. Cluster analysis revealed three clusters of 39 (cluster 1), 92 (cluster 2) and 131 subjects (cluster 3). Cluster 1 was characterized by renal involvement (84.6%) and high ANCA positivity (92.3%), cluster 2 by virtually absent renal involvement (3.3%) and ANCA positivity (4.3%) and cluster 3 by an intermediate phenotype with renal involvement (13%), ANCA positivity (31.3%) and frequent cardiovascular involvement (59.5% vs. 17.9% and 35.9% for clusters 1 and 2, respectively) and gastrointestinal involvement (42% vs. 15.4% and 12%, respectively). ANCA positivity was associated with renal disease (P < 0.0001), peripheral neuropathy (P = 0.005) and constitutional symptoms (P = 0.02).

**Conclusion.**— Cluster analysis of EGPA, although reinforcing the link between ANCA positivity and renal involvement in the disease, does not suggest that it is composed of clearly separated and mutually exclusive subclasses.