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P384 -Benefit or burden: a systematic review and meta-analysis of treatment outcomes of ANCA-associated vasculitis in patients over the age of 75 years

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Background: Despite a peak incidence of 64-75 years, the potential benefit of treating ANCA-associated vasculitis in the oldest age groups remains unclear with most published studies defining elderly as > 65 years. This study aims to determine outcomes of induction immunosuppression in patients aged > 75 years.

Method: A cohort of patients aged > 75 years with biopsy proven ANCA-associated vasculitis was constructed from a single centre between 1998 – 2016. Follow up was to two years or death. Analysis included multivariate Cox regression to compare mortality and ESRD based on induction immunosuppression therapy. A systematic review of outcome studies was subsequently undertaken amongst this patient group through Pubmed, Cochrane and Embase databases from inception until 13/09/18.

Results: From a cohort of 249 patients, 59 were aged > 75 years, of which 51 had completed data. Mean age was 78.9 + 2.7, with a male percentage of 54.9% and mean modified Charlson comorbidity index of 1 + 1.3. Induction therapy was given to 76% (n=39) of patients. The systematic review for outcome studies of ANCA vasculitis in the elderly identified 1943 citations. Following independent review by two authors, four cohort studies were eligible for inclusion, yielding a combined total of 274 patients inclusive of our cohort. The aggregated one year mortality irrespective of treatment was 36% (CI 27% – 47%). Three studies, inclusive of our cohort, compared outcomes by treatment status. Within our cohort, induction immunosuppression therapy was associated with a lower two-year mortality risk, although not statistically significant [HR 0.75 (95% CI 0.23 – 2.49)]. However, the pooled HR by meta-analysis revealed a significant risk reduction for death with treatment [HR 0.44 (95% CI 0.25 – 0.76), I2=0%]. Treated patients had a lower pooled rate of ESRD, but was not statistically significant [HR 0.76 (95% CI 0.37 – 1.59)]. Subgroup analysis of our cohort did not identify poorer outcomes with advancing age on adjusting for age > 80 years.

Conclusion: This meta-analysis suggests that patients > 75 years with ANCA-associated vasculitis do benefit from induction immunosuppression with a significant survival benefit. Age should not be a limiting factor when considering treatment. Further trials are required to better evaluate renal outcomes amongst this age group.