**A Steroid-Sparing Regimen for Remission Induction Therapy in Renal ANCA-Associated Vasculitis**

Stephen P McAdoo, Rachna Bedi, Jack Galliford, Megan Griffith, Thomas D. Cairns, Charles D. Pusey. Imperial College Renal and Transplant Centre, United Kingdom.

**Objectives**: The majority of early mortality in AAV is now attributed to infections, rather than active disease. Infection, along with cardiovascular disease, remains a common cause of long-term mortality. It is likely that corticosteroid exposure contributes to the risk of these events, and that steroid avoidance may improve outcomes. This is a cohort study of a steroid-sparing regimen that has been in use for treatment of new or relapsing renal AAV at our centre since 2014.

**Methods**: The treatment protocol consists of rituximab 2x1g and methylprednisolone 250-500mg at day 0 and 7; iv cyclophosphamide 10mg/kg at days 0 and 14 (maximum 750mg each) and then every 14 days for a further four doses (500mg each); and a rapidly tapered course of oral steroids of target duration one week. Patients with alveolar haemorrhage, creatinine >500μmol/l, or requiring dialysis were not included. Maintenance therapy commenced at three months with azathioprine or MMF.

**Results**: Eighteen patients have been treated with this protocol, with median 15 months follow up. The median BVAS and creatinine at presentation were 17 and 180μmol/l, respectively. The median doses of drugs administered were rituximab 2g, cyclophosphamide 3.2g and total corticosteroid 1g. 17/18 patients achieved remission by six months. The remaining patient required early re-introduction of steroids for pleuropericardial disease in the first three months, and was excluded from subsequent analysis. Of the 17 patients who were adherent to the protocol, all had stabilisation or improvement in renal function at three months. One patient experienced disease relapse at 14 months. Two patients had serious infections requiring iv antibiotic therapy or hospital admission. There were no new cases of diabetes and measurements of HbA1c did not change significantly (46 vs 42 mmol/mol pre- and post- treatment, respectively, p=0.23).

**Conclusions**: Our data suggests that remission in AAV may be achieved with significantly lower corticosteroid doses than previously reported. This was not associated with early relapse, and may result in an improved adverse event profile. Controlled studies are required to establish if steroid avoidance using this, or similar, protocols will result in improved long-term outcomes in larger cohorts.