Acute Antibody Mediated Rejection (AMR)
(Modified from Monash protocol courtesy of A/P John Kanellis Jan 2014)

Definition
Rejection caused by antibodies to HLA antigens, ABO blood group antibodies and non-MHC molecules.

Diagnosis
- Raised creatinine
- Histological evidence of acute tissue injury (1 or more of the following)
  - Microvascular inflammation
  - Intimal or transmural arteritis
  - Acute thrombotic microangiopathy, in the absence of any other cause
  - Acute tubular injury, in the absence of any other apparent cause
- Evidence of recent or current antibody interaction with vascular endothelium (at least one of the following)
  - Linear C4d+ staining in peritubular capillaries
  - At least moderate microvascular inflammation
- Detection of donor specific antibodies (HLA or other antigens)

Treatment
- Maximise mycophenolate or mycophenolic acid, convert to tacrolimus if able (Tac level 4-8)
- Recommence or continue CMV and PJP prophylaxis.
- In view of the risks of HBV reactivation, specialist opinion for initiation of antiviral agents is to be considered in patients with positive anti HB core antibodies
- Pulse methylprednisolone 500mg ivi x 3 doses and recommence maintenance steroids if previously withdrawn.
- Plasma exchange with 5% albumin (unless coagulopathy or recent biopsy in which case FFP is used)
  - 2-3L daily for 3 days then 2nd daily for 2-4 weeks
  - IVIG 0.1g/kg after each exchange (see below for thrombotic risk reduction during IVIG therapy)
- Renal graft biopsy after the above treatment
- If ongoing AMR, continue second daily plasma exchanges and IVIG for a further 2-4 weeks and repeat the biopsy
- Consider continued therapy with IVIG 1g/kg per month as below if improved but there is ongoing activity present. Also consider rituximab 500mg single dose.

Alternative treatment
If no vascular access and/or mild AMR, IVIG 1gm/kg (max 80gm) monthly for 3 months. Repeat biopsy to review degree of activity. Consider repeat IVIG for 3-6 months. Consider rituximab if ongoing activity.
Reducing thrombotic events in renal transplant recipients treated with IVIg for antibody-mediated rejection

Pre-Infusion

Aspirin 300 mg

Subcut. enoxaparin 1 mg/kg

Intravenous 0.9% saline 250 mL

IVIg infusion

IVIg 1 g/kg
Starting at 50 mg/kg per hour
Increasing to 100 mg/kg
per hour after 1 hour

Intravenous 0.9% saline 250 mL

Post-Infusion

Clinical evaluation for complications

TO BE DISCUSSED WITH NEPHROLOGIST FIRST

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References


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