Treatment of Acute antibody mediated rejection

Antibody-mediated rejection (AMR)

Following a diagnosis of potential AMR discussion must take place between pathologist + H&I + relevant clinicians, and this team will make a decision as to whether to follow this protocol or to deviate from this (for example if evidence of cellular rejection the use of ATG may be advocated). A more detailed background and guidance document can be found at the foot of this page.

Management of AMR (in HLA & ABO compatible transplants)

i. Steriods

- Methylprednisolone 500mg IV given every day for 3 days

ii. Plasma Exchange

- This should be started no sooner than 24 hours after a renal biopsy
- 5 alternate day exchanges of 1 plasma volume, perhaps more based on severity
- Discuss with BTS regarding replacement fluid (albumin *vs.* FFP)
- Monitor for hypocalcaemia, bleeding and infection

iii. Immunoglobulin (IVIg)

- 5 doses of 100mg/kg given at the end of each plasma exchange
- Transplant pharmacist should be notified to organise IVIg
- Prescribe as *Octagam*, start the infusion at 0.6ml/kg/h for first 30mins. Then increase rate to 1.2ml/kg/hr for the remainder of the infusion
- Usual observations as for patients receiving blood products apply Monitor temperature, pulse, BP every 15mins for first hour, then hourly thereafter

iv. Additional Anti-Humoral Agents

- Anti B-cell or plasma cell treatments may be considered on a case by case basis
- Bortezomib 4 doses of 1.3 mg/m^2 S/C (1 cycle) on days 1, 4, 8, 11. If using bortezomib, acyclovir should be used for 2 months if valganciclovir not already prescribed
- Rituximab at a dose of 375 mg/m^2

v. Other Immunosupression

This should be continued as pre standard protocol (MMF, tacrolimus)

vi. Monitoring

There should be monitoring of donor specific antibody level and renal biopsy at the end of initial treatment to assess treatment efficacy.

Infection Prophylaxis:

- It is suggested that oral nystatin mouthwash is used during the period of augmented corticosteriods (100,000 units qds)
- If pulse IV Methylprednisolone or ATG is given for late AR, co-trimoxazole should be given for 3 months
- Valganciclovir should be given for 3-6 months if ATG is used, even if CMV serostatus is D-/R-
- For pulse IV Methylprednisolone, it is suggested that a pre-emptive approach is employed for 6 months, involving checking for CMV PCR at clinic visits