APLASTIC ANEMIA

ANTITHYMOCYTE GLOBULIN (ATGAM) – CYCLOSPORINE A – CORTICOSTEROIDS

Antithymocyte globulin (horse) 40 mg/kg/day IV* Days 1 – 4
Cyclosporine A 6 mg/kg/day** PO Day 1 onwards (see below)
Methylprednisolone 1 mg/kg/day IV/PO Days 1 – 10 followed by a rapid taper over 2 weeks

*Administer in 500 mL NS over 4 hours; **Divide daily dose into 2 doses and administer 12 hours apart. Adjust Cyclosporine A doses (after initial 14 day treatment) to maintain a serum concentration of 200 – 400 ng/mL by radioimmunoassay. Cyclosporine A is discontinued without a taper at the 6 month visit (assuming response).

NOTE 1: The published article lists cyclosporine 12 mg/kg/day as the dose. This was using the Sandimmune® product that was less bioavailable. Neoral® has increased bioavailability; therefore the starting dose is 3 mg/kg PO BID and titrated to serum concentrations.

NOTE 2: The protocol was amended to include administration of G–CSF (5 micrograms/kg). Patients were allowed to receive G–CSF for episodes of fever that did not respond to antibiotics. To receive G–CSF patients needed to fulfill the following criteria: ANC less than 0.5 x 10⁹/L, fever greater than 48 hours despite adequate antibacterial and antifungal therapy, or a localized infection that increased in extent or severity despite adequate antimicrobial or antifungal therapy. Aerosolized pentamidine 300 mg every 4 weeks was used while on cyclosporine A.

NOTE 3: If using rabbit antithymocyte globulin (thymoglobulin) use a conversion of 10:1 from horse antithymocyte globulin i.e., 40 mg/kg of horse ATG = 4 mg/kg rabbit ATG.

THYMoglobulin – CYCLOSPORINE A – CORTICOSTEROIDS

Thymoglobulin  3.5 mg/kg/day  IV  Days 1 – 5
Cyclosporine A  6 mg/kg/day **  PO  Day 1 onwards (see below)
Methylprednisolone  1 mg/kg/day  IV/PO  Days 1 – 10 followed by a rapid taper over 1–2 weeks

*Administer in 500 mL NS over 4 hours; **Divide daily dose into 2 doses and administer 12 hours apart. Adjust Cyclosporine A doses (after initial 14 day treatment) to maintain a serum concentration of 200 – 400 ng/mL by radioimmunoassay. Cyclosporine A is discontinued without a taper at the 6 month visit (assuming response).

NOTE 1: The published article lists cyclosporine 10–12 mg/kg/day as the dose. This was using the Sandimmune® product that was less bioavailable. Neoral® has increased bioavailability; therefore the starting dose is 3 mg/kg PO BID and titrated to serum concentrations.

NOTE 2: The protocol was amended to include administration of G-CSF (5 micrograms/kg). Patients were allowed to receive G-CSF for episodes of fever that did not respond to antibiotics. To receive G-CSF patients needed to fulfill the following criteria: ANC less than 0.5 x 10^9/L, fever greater than 48 hours despite adequate antibacterial and antifungal therapy, or a localized infection that increased in extent or severity despite adequate antimicrobial or antifungal therapy. Aerosolized pentamidine 300 mg every 4 weeks was used while on cyclosporine A.

This regimen and study was performed in patients requiring re–treatment with rabbit anti–thymocyte globulin in patient with relapsed or refractory severe aplastic anemia.