

CMV



Primary infection

- systemic infection

CMV



Primary infection Reactivated infection Reinfection

- high-grade virus replication:
systemic infection, tissue invasive
disease, immunosuppression
- low-grade local virus replication:
graft rejection

CMV



Reactivated infection

- low-grade local
virus replication

Normal host

Genetic
predisposition
to autoimmunity
/inability to
control CMV
replication

?

Development of
autoimmune
disorder

Cross reactive antigens
Polyclonal B cell activation

Trigger of autoimmune
phenomena (autoantibody
production)

Vascular
damage

Transplant recipient

Inhibition of APC,
NK cell and T cell
activity

Inhibition of bone
marrow
myelopoiesis

Graft rejection

Immunosuppression

Patient with autoimmune disorder

Chronic virus
stimulation

Amplification of
inflammation

Worsening/progression of
autoimmune disorder