

WHAT IS CMV?

CMV is a wide spread virus, that could go undetected since most patients don't show any symptoms. However, this virus could lead to severe end-organ dysfunction in patients with weak immune system, especially transplant recipients or HIV patients.



It can be asymptomatic in healthy individuals or presents as infectious mononucleosis.



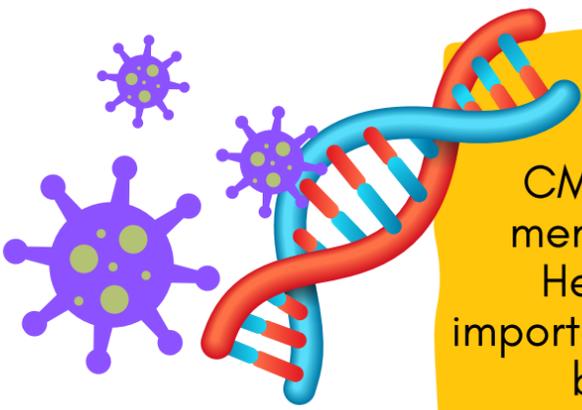
CMV DURING PREGNANCY

CMV Infection in pregnant women is associated with congenital CMV resulting in deafness and mental disabilities in newborns.



ETIOLOGY

CMV is double-standard DNA virus and a member of Herpes family, known as Human Herpes 5. Cytotoxic T-Lymphocytes play important role in containment of viral replication but do not eliminate virus completely



LATENCY AND REACTIVATION

- After the resolution of primary (acute) infection, CMV establishes latent infection i.e remain dormant within the host.
- When viral reactivation occur virions released in bloodstream causing symptoms predominantly in immunocompromised patients.

TRANSMISSION

Transmission can occur through multiple routes including:



Direct contact, kids in daycare or family members shed the virus from upper respiratory tract or urine.



Transmission of CMV through blood transfusion or transplanted organs from seropositive patients.



Sexual exposure (rates of infection are higher in patients with multiple sexual partners).



Perinatal transmission, neonates are infected during exposure in utero.

WHO AFFECTED THE MOST...



BABIES (DEVELOP CONGENITAL CMV)

- Premature birth
- Low birth weight
- Microcephaly
- Viral Hepatitis
- Pneumonia
- Enlarge Spleen

IMMUNOCOMPROMISED PATIENTS SPECIFIC DISEASE ENTITIES ARE

- CMV Hepatitis
- CMV Colitis
- CMV Retinitis
- Transverse Myelitis
- CMV Esophagitis
- Subacute Encephalitis



HEALTHY INDIVIDUALS INFECTIOUS MONONUCLEOSIS INCLUDING

- Fever
- Atypical Lymphocytosis
- Heterophile Negative Antibody
- Rash
- Enlarged Spleen

THERAPY

- Infectious Mononucleosis is self-limited, with complete recovery over a period of days to weeks. Antiviral therapy is usually not recommended.
- For systemic therapy of CMV infection (Ganciclovir, Valganciclovir and Foscarnet are approved antiviral agents).
- Toxicities are common with the use of these agents and must be weighted against the benefit of initiating treatment.

HOW TO IMPROVE LIFE WHEN YOU SUFFER CMV...

- People with healthy immune system need no treatment/Ibuprofen can relieve mild symptoms like fever, myalgias.
- If patient is scheduled for a Transplant, one should discuss prophylaxis with Ganciclovir.
- If pregnant or planning to get pregnant, avoid kissing toddlers, sharing utensils and avoid sex with partner if he is sick with CMV infection.
- Test saliva/urine in newborns if CMV is suspected because newborns can be treated with antivirals to have better developmental outcomes.



References:

https://www.uptodate.com/contents/cytomegalovirus-the-basics?search=cmv&topicRef=8289&source=see_link <https://www.ncbi.nlm.nih.gov/books/NBK459185/>
[https://www.mayoclinic.org/diseases-conditions/cm/symptoms-causes/syc-20355358#:~:text=Cytomegalovirus%20\(CMV\)%20is%20a%20common,CMV%20is%20cause%20for%20concern.](https://www.mayoclinic.org/diseases-conditions/cm/symptoms-causes/syc-20355358#:~:text=Cytomegalovirus%20(CMV)%20is%20a%20common,CMV%20is%20cause%20for%20concern.)