

Abstract

Cytomegalovirus (HCMV) is a ubiquitous human β -herpesvirus highly prevalent in the population. HCMV is transmitted by close contact between individuals. In infected person this virus causes mainly asymptomatic primary infection, after which the latency is established. In pregnant women HCMV infection can lead to abortions, defects of the fetus and congenital abnormalities of newborn babies. Even more serious complications are caused by this virus in the immunocompromised patients, especially those infected by HIV and in patients who undergo solid organ transplantation and hematopoietic stem cell transplantation.

This work is a complex report about HCMV biology with emphasis on complications which HCMV causes in patients after solid organ transplantation and hematopoietic stem cell transplantation. This article also contains summary of the methods used for diagnostic of HCMV infection and monitoring and prevention of HCMV associated diseases.

Keywords: Cytomegalovirus, hematopoietic stem cell transplantation, solid organ transplantation, detection, monitoring, polymerase chain reaction, cellular immunity, humoral immunity