Abstract

The human cytomegalovirus (HCMV) is an ancient double-stranded DNA virus that belongs to subfamily β Herpesvirinae and is ubiquitous in human population. Like other herpesviruses infections, the HCMV primary infection leads to a lifelong latency and the virus reactivates from latency periodically through the whole life. The transmission of this virus depends on direct contact among people. The primary HCMV infection is usually asymptomatic in immunocompetent individuals but the reactivated virus is a major cause of diseases in immunocompromised individuals including AIDS patients and allo-graft transplant recipients.

This work represents a report about HCMV and its coexistence with the host immune system. The thesis also contains information about complications caused by HCMV in patients who underwent solid-organ or hematopoietic stem cell transplantation.