

Medline ® Abstract for Reference 123 of 'Epidemiology, clinical manifestations, and treatment of cytomegalovirus infection in immunocompetent adults'

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TI Cytomegalovirus serostatus and outcome in nonimmunocompromised critically ill patients.

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OBJECTIVE: The impact of cytomegalovirus reactivation during critical illness remains unclear and studies investigating prophylaxis in cytomegalovirus seropositive patients are being considered. This study investigates the association between cytomegalovirus seropositivity and outcome in a large population of nonimmunocompromised critically ill patients.

DESIGN: Cytomegalovirus serostatus was determined on prospectively collected serum samples. The primary end point was intensive care unit mortality. The secondary end points were in-hospital mortality, time to alive discharge from intensive care unit and hospital, time to alive weaning from mechanical ventilation, and need for renal replacement therapy.

SETTING: This retrospective study was performed in a 17-bed medical and 56-bed surgical intensive care unit in a 1,900-bed referral hospital.

PATIENTS: We analyzed serum of 1,504 nonimmunocompromised critically ill patients with an intensive care unit length of stay of 3 days or more. Patients with hematologic malignancy, transplantation, immunosuppressive therapy (calcineurin inhibitors, antitumor necrosis factor- α drugs, antilymphocyte antibodies, or chemotherapeutic agents), or a do-not-resuscitate order were excluded.

INTERVENTIONS: None.

MEASUREMENTS AND MAIN RESULTS: Sixty-four percent of the studied patients were cytomegalovirus seropositive. Multivariable analysis revealed no associated risk for intensive care unit or hospital mortality, or for time to alive discharge from intensive care unit or hospital. The risk for alive weaning from mechanical ventilation and the need for renal replacement therapy were also comparable in seropositive and seronegative groups.

CONCLUSION: : No association was found between the cytomegalovirus serostatus and the studied major clinical outcomes. Based on these results, the design of an intervention study assessing the impact of cytomegalovirus prophylaxis in all cytomegalovirus seropositive critically ill patients appears premature.

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