

Cytomegalovirus in kidney transplant recipients: incidence, management and outcome in a District General Hospital

Dr Mark Davies¹, Emma Jones¹

¹BCUHB/Bangor University, Wrexham, United Kingdom

Introduction:

Cytomegalovirus (CMV) is a common post-kidney transplant complication, despite prophylactic regimens. In one single-centre study CMV disease occurred in 29% of kidney transplant patients at a median of 61 days after stopping prophylaxis (1). Another study suggested that the majority of CMV infections are delayed, i.e. they occur >100 days post-transplant (2). Research suggest that the biggest risk factor for CMV infection is the CMV serostatus of the donor-recipient pair (3). Whilst some CMV infections occur without symptoms or sequelae (termed CMV viraemia) others present with significant symptoms and can be associated not insignificant mortality (4). As such it is important that all centres that care for kidney-transplant patients have a protocol for screening for and effectively managing CMV infections.

Method:

We conducted an audit of CMV infections in our transplant recipients in a district general hospital caring for 200 transplant patients. Audit standards were taken from the "Second International Consensus Guidelines on the Management of Cytomegalovirus in Solid-organ Transplantation". Data was collected retrospectively between the years 2013 and 2018. Audit items included use of prophylaxis, Tacrolimus (or ciclosporin) level, other immunosuppression, CMV PCR results, symptoms, donor and recipient serostatus, treatment and outcome.

Results:

28 cases of CMV infection were identified from 2013-2018.

Descriptive statistics are shown in Table 1.

Most cases occurred over 12 months after transplantation, in patients who had therapeutic tacrolimus levels (7.3). The majority of patients (60%) identified had presented with gastro-intestinal symptoms. Only 30% received IV ganciclovir, 10% no antiviral, whilst the rest were prescribed oral valganciclovir. 70% also had a reduction/ temporary omission of anti-proliferative immunosuppression (majority MMF). (further analysis is ongoing at this time in preparation for presentation)

Conclusion:

CMV infection is an important complication in kidney-transplant recipients. A protocol to trigger screening is warranted because of its prevalence and potential consequences. Non-specific symptoms, especially gastrointestinal upset, should prompt instigation. CMV can be effectively treated with antivirals and adjustment to immunosuppression without compromising graft function (at least in the short term examined in this audit). In our population there was a mean improvement in creatinine after CMV treatment. We are considering the changes to the latest international consensus which state that Secondary Prevention is no longer required. A future audit should examine the effect of any change in practice.