EXTENDED VERSUS STANDARD CYTOMEGALOVIRUS PROPHYLAXIS IN SOLID ORGAN TRANSPLANTATION

Abstract Number
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Background

Cytomegalovirus (CMV) is the most important viral pathogen in solid organ transplant (SOT) recipients. Prolongation of CMV prophylaxis from 3 to 6 months has been associated with long-term reduction in CMV infection in high-risk renal recipients. It has been recommended in this group of patients and, by extension, in other SOT recipients.

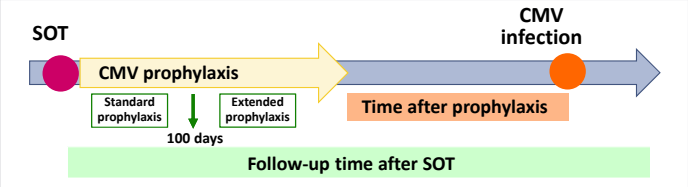
Purpose

To assess the efficacy and safety of CMV prophylaxis in SOT recipients, as well as to compare the efficacy of extended versus standard CMV prophylaxis.

Abbreviations
- CMV: Cytomegalovirus
- SOT: Solid organ transplant
- D: Donor
- R: Receptor

Materials & Methods

- ✓ SOT recipients from 2007 to 2014 were retrospectively studied (n= 438).
- ✓ Patients who received CMV prophylaxis (ganciclovir and/or valganciclovir) were included.
- ✓ CMV replication was monitored according to SOT protocols (monthly from 3-6 months after SOT and when clinically indicated).
- ✓ **Efficacy evaluation**: CMV infection after prophylaxis. Outcome was compared between groups with **standard prophylaxis** (length ≤ 100 days) and **extended prophylaxis** (> 100 days).
- ✓ **Safety analysis:** Evaluation of myelotoxicity (National Cancer Institute Common Toxicity Criteria scale Version 4.0).

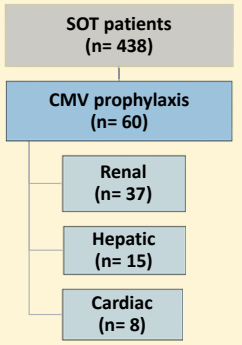


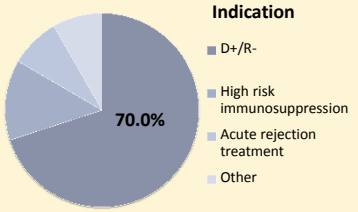
Data collection
- Demographics
- Transplant type
- CMV D/R serostatus
- Immunosuppressive therapy
- CMV prophylaxis therapy
- CMV replication (antigenemia or DNAemia)
- Myelotoxicity (anemia, leucopenia, neutropenia, thrombocytopenia)

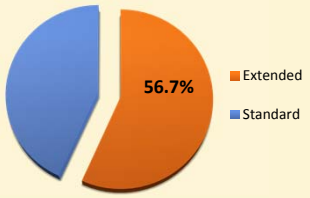
Statistical analysis
Chi-square test
SPSS 22.0 (SPSS Inc., Chicago, Illinois, USA).
P-values< 0.05

Results

CMV PROPHYLAXIS



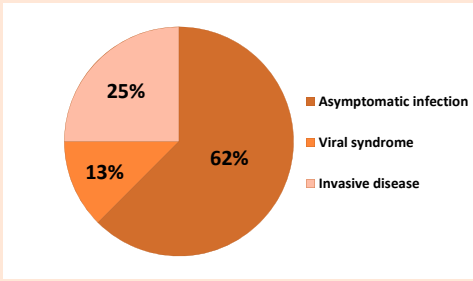




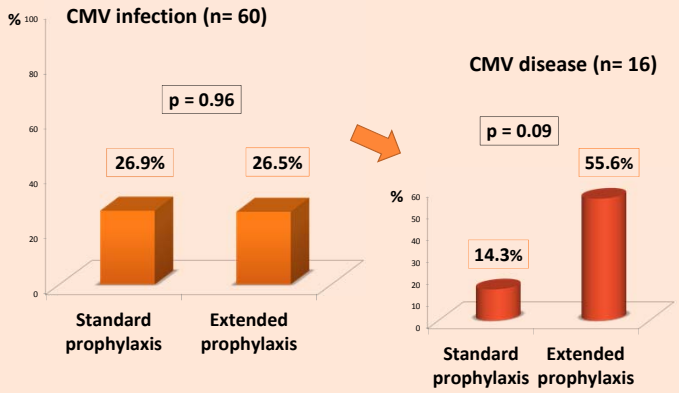
GLOBAL EFFICACY EVALUATION

26,7% (n= 16) of patients developed **CMV infection** after a mean of 48 ± 23.6 months of follow-up.

Median time to CMV replication was 52 (55) days.



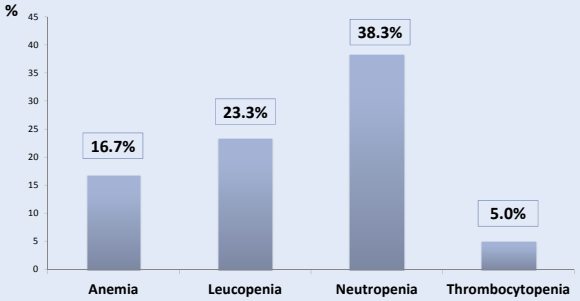
EFFICACY EVALUATION: infection after prophylaxis



SAFETY ANALYSIS (haematological toxicity)

50.0% (n= 13) of patients developed haematological toxicity.

Length of prophylaxis was independently associated with toxicity (**OR 1.01, IC95% 1.00-1.02, p<0.05**).



Conclusions

- ✓ Extended CMV prophylaxis **does not reduce CMV infection** rate after prophylaxis compared to standard prophylaxis.
- ✓ **Haematological toxicity** during prophylaxis is common and it is associated with length of therapy.
- ✓ We can not recommend extended CMV prophylaxis as general rule in high-risk SOT recipients.

References

Humar A et al. Transplantation 2010;90: 1427-1431.