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.

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 to 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).**

Results

**CMV PROPHYLAXIS**

- **SOT patients (n= 438)**
- **CMV prophylaxis (n= 60)**
  - Renal (n= 37)
  - Hepatic (n= 15)
  - Cardiac (n= 8)

**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**

- **CMV infection (n= 60)**
  - Standard prophylaxis: 26.3%
  - Extended prophylaxis: 26.9%
  - **p = 0.96**

- **CMV disease (n= 16)**
  - Standard prophylaxis: 14.3%
  - Extended prophylaxis: 55.6%
  - **p = 0.09**

**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