

Introduction

The main cause of morbidity and mortality after renal transplantation are infectious complications due to the improvement of new and potent immunosuppressive drugs. We present the trends in infections that occurred among pediatric patients undergoing renal transplantation according to the immunosuppressive regimen used over time.

Methods

Descriptive and retrospective study of 131 pediatric kidney transplants, between January 1995 and December 2014. Infections were divided into three periods based on the immunosuppressive treatment: (1) 29 transplants under treatment with Cyclosporine and Azathioprine CA; (2) 36 transplants with Cyclosporine and Mycophenolate mofetil CM; and (3) 63 under Tacrolimus and Mycophenolate mofetil TM. All three periods included induction therapy and maintenance with steroids (Image 1).

Bibliography

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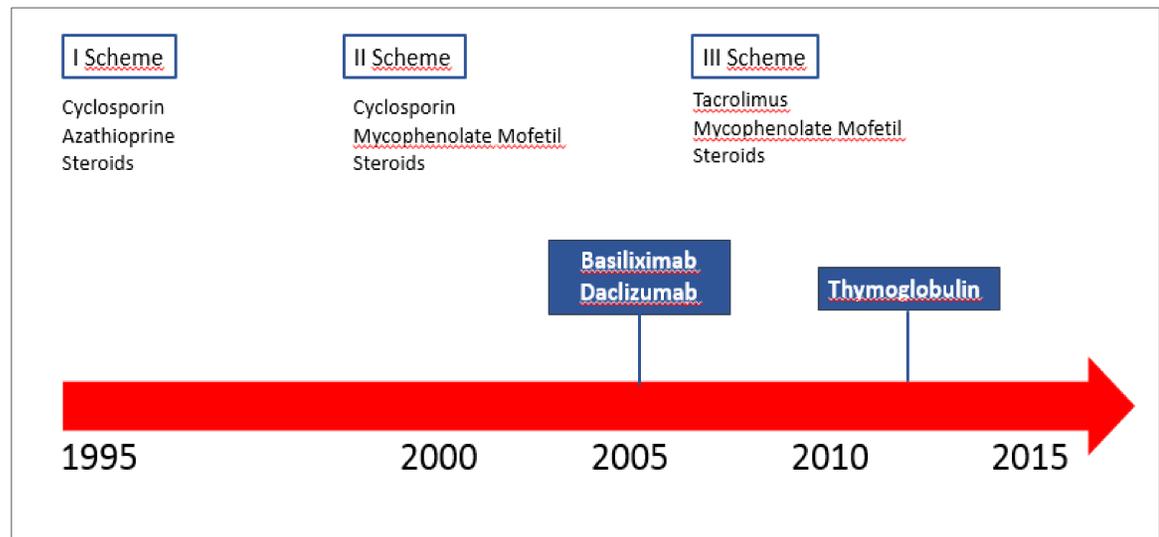


Image 1. Immunotherapy scheme used in the Fundación Valle del Lili in Cali, Colombia since the programme pediatric renal transplantation started.

Results

77 patients had at least one post-transplant infection. There were 177 identified infection episodes, 67 in the first month, 51 between the first and sixth month, 27 between months 6 and 12, and 32 after the first year. The first period had the highest number of infections. Urinary tract infections were the most common (n=99, 55.0%). Gram negative germs were the most common cause of bacterial infections (78%). Cytomegalovirus (CMV) was the most prevalent agent among viral infections (n=15), and it occurred mainly in transplants with CMV IgG positive donor status and negative recipient. There was a decrease in CMV and varicella zoster infections over time. Bacterial infections occurred earlier in the follow up time, compared to viral infections (p=0.0002).

Conclusions

Most infections occurred during the first semester after transplantation. Urinary tract infections were the most frequent among all periods. This is the first study on the behaviour of infections after kidney transplantation in pediatric patients in Colombia, and it provides an orientation on the type of infections and occurrence after transplantation, which may improve clinical follow up of our patients and thus increase survival rate for grafts and patients.