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Infections: The Achilles Heel of Immunosuppression for Renal Transplantation and Immunological Renal Disease Management in the Top End of Northern Australia: Case Reports

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Author(s)

Sandawana William Majoni, Kerry Dole, Zulfikar Jabbar, Madhivanan Sundram, Greg Perry

ABSTRACT

Improved immunosuppression regimens have led to better survival for patients with renal transplant grafts and patients with immunological renal diseases worldwide. However, this is not the case in the Northern Territory of Australia. Available limited published data from the Northern Territory of Australia have shown poor outcomes for renal transplantation with survival for both patients and grafts around 50% at 5 years suggesting death with a functioning graft as the commonest cause of graft loss. These studies have shown that the leading cause of death is infections. Achieving the right level of immunosuppression to prevent rejection in renal transplantation and achieve remission in immunological renal diseases can be a major challenge in areas with high prevalence of infections such as the Northern Territory. We present 2 cases of the challenges from infections of immunosuppression in renal transplantation and immunological renal diseases in the Northern Territory of Australia. A 57 year old Aboriginal woman received a deceased donor renal transplant in 2006. She has been plagued by recurrence of several life threatening infections including urinary tract, cytomegalovirus, and severe cryptococcus infections. This resulted in immunosuppression reduction and failure of the transplant 5 years post transplantation. A 20 year old Aboriginal woman presented with a combination of severe lupus nephritis and severe sepsis. She fully recovered after treatment with antibiotics and careful immunosuppression. However, she has had recurrent hospital admissions with life threatening infections resulting in stopping the immunosuppression. She then had severe lupus nephritis flare leading to dialysis dependence and will need a renal transplant. The cases illustrate the need for tailored and robust immunosuppression and transplant work up protocols. To that effect, prospective studies to analyse outcomes in immunosuppressed individuals, pharmacokinetic studies assessing whether the conventionally recommended drug levels are appropriate for this population and culturally appropriate educational programmes need to be performed.

KEYWORDS

Renal Transplant; Immunological renal disease; Lupus Nephritis; Immunosuppression; Indigenous Australians; Northern Territory

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