

Pioneering in ABO-Incompatible Renal Transplantation in Pakistan: Breaking Barriers – A Case Series

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BACKGROUND

Kidney transplantation is the treatment of choice for end-stage renal disease (ESRD). However, limited donor availability, especially live-related donors, hinders access to this life-saving procedure. ABO-incompatible kidney transplantation (ABOi KT) offers a promising solution to expand the donor pool. This case series presents the first successful ABOi KT cases in Pakistan.

OBJECTIVES

To explore the outcomes of ABO-incompatible renal transplants analyzing graft survival, rejection episodes, and patient outcomes.

METHODS

A retrospective analysis was performed on 15 patients who underwent ABO-incompatible renal transplantation at Safari Bahria International Hospital, Rawalpindi. All patients received a desensitization protocol comprising rituximab, plasmapheresis, and triple immunosuppression. Post-transplant immunosuppression was optimized to prevent rejection while minimizing adverse effects. Patient demographics, graft survival, acute rejection episodes, and complications were recorded.

CASE PRESENTATION

A total of 15 patients with ESRD underwent ABOi KT after no compatible donor was found. A standardized desensitization protocol involving rituximab, plasmapheresis, and triple immunosuppression was implemented.

RESULTS

Among the 15 cases analyzed post operatively, 3 patients developed lymphocele, 1 had BK virus infection and 1 had pneumonia. One patient had presumed antibody mediated rejection and three had acute cellular rejection which was managed by nephrology team. There was 1 mortality due to post-op cardiac complications. The overall graft survival rate was 93.3%, with one mortality.

CONCLUSION

This pioneering achievement demonstrates the potential for ABO-incompatible kidney transplantation in Pakistan, with promising short-term outcomes. It underscores the potential to significantly increase the number of kidney transplants and improve patient outcomes. Larger studies are required to assess long-term survival and optimize management protocols for improved patient care.

KEYWORDS

ABO-incompatible, renal transplant, kidney transplantation, desensitization, immunosuppression