

Tapering of immunosuppression in recipients with failed kidney transplant – retrospective cohort study

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- **Introduction**

There is **limited data to guide physicians in the optimal management of immunosuppression in patients whose kidney transplant has failed** and who have returned to dialysis. Stopping or discontinuing immunosuppressive therapy can lead to acute graft rejection or intolerance syndrome. In this study, we wanted to investigate when and how immunosuppressants are weaned in Slovenian patients with failing kidney grafts.

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- **Results**

Patients with kidney graft failure between January 1, 2021 and December 31, 2022 were identified.

After excluding 66 patients with death censored graft loss and patients with graft failure due to primary non-function, a cohort of **36 patients with kidney graft failure was included in the analysis.**

Nine patients (25%) were women, and the median age at the time of kidney failure was 56 +- 11 (range 29–70) years. The most common cause of allograft failure was rejection (n = 19, 51.3%).

At the time of graft failure, immunosuppressants were maintained in all 36 (100%) patients.

A total of 18/36 (50%) patients were candidates for retransplantation.

Most patients **19/39 (53%)** were receiving **dual** immunosuppressive therapy; 7 patients were receiving CNI and steroids, 11 patients were receiving CNI and antimetabolites and 1 patient was receiving CNI and everolimus.

11/36 (30.5%) patients were receiving **triple** therapy; 9 patients were receiving CNI, steroids and antimetabolites and 2 patients were receiving CNI, steroids and everolimus. 9/11 patients receiving triple therapy at the time of kidney transplant failure had been diagnosed with acute or chronic rejection in the previous years.

6/36 (16.5 %) patients were receiving **monotherapy**; 5 patients were receiving CNI and 1 patient was receiving steroids alone.

- **Results**

After graft failure and the start of dialysis, the first step was to discontinue the antimetabolites or everolimus. The second step was to discontinue the steroids. An ACTH test was performed on all patients receiving steroids and hydrocortisone was administered in case of adrenal insufficiency.

In the first year after graft failure, **graft intolerance syndrome** occurred in 4 (11.1%) patients, 3 patients underwent graft nephrectomy; however, 1 case resolved without nephrectomy. In all patients who underwent allograft nephrectomy, rejection occurred prior to graft failure.

One year after kidney transplant failure, immunosuppressive therapy was continued in 31/36 (86%) patients. One patient was re-transplanted, the other 30/31 patients were receiving monotherapy with CNI (tacrolimus or cyclosporine), one patient was receiving dual therapy (tacrolimus and steroids). The mean tacrolimus and cyclosporine trough levels one year after kidney transplant failure were 3.5 +/- 1.08 and 17 +/- 7, respectively.

- **Conclusion**

The majority of Slovenian patients are still receiving monotherapy with low-dose CNI immunosuppressants one year after kidney transplant failure.