

## KSN 2017 Abstract

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Long-term outcomes of steroid withdrawal between 3 and 6 months after kidney transplantation with induction therapy and tacrolimus and mycophenolate mofetil

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**Objectives** : Because of many side effects of the long-term use of steroids, the introduction of more potent immunosuppressive agents motivated clinicians to get rid of steroids from the maintenance regimen in kidney transplantation (KT). We also have conducted a late steroids withdrawal (6 months after KT) trial in recipients with immunological low risk, primary living donor KT. Many studies including ours have shown that late steroids withdrawal had comparable patient and graft survival. Based on these findings, we applied the late steroids withdrawal protocol in practice. The protocol included the induction therapy and tacrolimus and mycophenolate mofetil (MMF). Steroids were withdrawn 3 months ~ 6 months after KT. This study was a single-center, retrospective study to efficacy and safety of late steroid withdrawal with induction therapy and tacrolimus and MMF compared with steroids maintenance group.

**Methods** : Among the patients who had KT between Feb 14, 1995, and Dec 14, 2014, we selected the patients with induction therapy and tacrolimus and MMF. Steroid withdrawal (SW) group was defined as tapering out of steroids between 3 ~ 6 months after KT. The others were classified to steroids maintenance (SM) group. Patient death and graft failure, biopsy-proven acute rejection (BPAR) episodes, and adverse events were assessed.

**Results** : Of 704 patients, SW group was 68 patients and SM group was 636 patients, with median follow-up duration of 55 (28.5 – 75) months and 43.5 (23 – 73) months, respectively. In the multivariate analysis, patient death and graft failure were not significant different between the two group [HR = 0.724 (0.16 – 3.284), HR = 0.678 (0.259 – 1.776), respectively]. The incidence of BPAR was significantly higher in steroid maintenance group (HR = 1.926 (1.161 – 3.196). However, the incidence of BPAR after 3months after KT was no difference between group (HR = 1.479 (0.84 – 2.607). There was no difference in adverse events such as post-transplant diabetes, hypertension, avascular necrosis, and cancer.

**Conclusions** : Late steroid withdrawal with induction therapy and tacrolimus and

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MMF did not increase the risk of acute rejection and had comparable graft and patient survival in selected recipients.

**Keywords** : kidney transplantation, steroid withdrawal