

# Resolution of Gastrointestinal Side Effects in a Patient Converted from Mycophenolate Mofetil to Enteric-coated Mycophenolate Sodium (*myfortic*<sup>®</sup>)

Murat Tuncer

Akdeniz University Medical School, Antalya, Turkey

## 1. Case Study

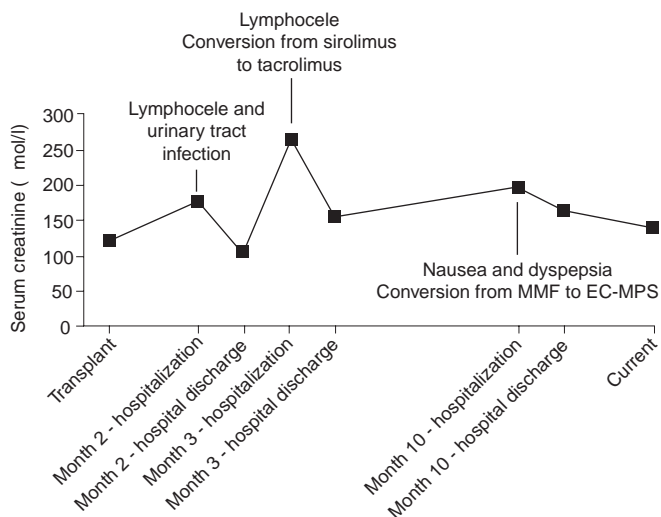
A 25-year-old man with chronic renal failure as a result of membranoproliferative glomerulonephritis with horseshoe kidneys underwent renal transplantation in December 2003. Initial immunosuppression comprised mycophenolate mofetil (MMF) 1000 mg twice a day and sirolimus 3 mg/day, adjusted to a target trough level of 8–12 ng/ml. Daclizumab induction (1 mg/kg for five doses) was given.

Two months posttransplant, the patient was hospitalised because of lymphocele, believed to be sirolimus related, and a urinary tract infection. The patient also experienced an increase in serum creatinine (figure 1). Ceftriaxone 2000 mg/day resolved the urinary tract infection, and the patient was discharged with a serum creatinine level of 106  $\mu$ mol/l. Recurrence of the urinary tract infection one month later led to rehospitalisation and a diagnosis of lymphocele with vesicoureteral reflux to the transplanted kidney (grade III). After surgical repair of the lymphocele and reflux, the patient was discharged again; serum creatinine was 155  $\mu$ mol/l (figure 1). Renal biopsy at the time of surgery showed tubulointerstitial rejection (Banff grade Ib). Rejection was treated with 'pulse' methylprednisolone 1000 mg/day for 3 days; as a result, sirolimus was discontinued and tacrolimus initiated at 7 mg/day (target trough level 8–12 ng/ml). MMF 1000 mg twice a day was continued.

Seven months later, the patient presented with nausea and dyspepsia, which persisted without improvement despite a reduction in the MMF dose to 500 mg three times a day for 2 weeks then to 500 mg twice a day. At that time, the patient was also started on famotidine 40 mg/day, but there was no improvement. The patient was switched from MMF to enteric-coated mycophenolate sodium (EC-MPS; *myfortic*<sup>®</sup>) 360 mg twice a day. The patient's gastrointestinal symptoms resolved completely, and after 2 weeks the EC-MPS dose was increased to 720 mg twice a day. The patient is currently receiving tacrolimus 6 mg/day and EC-MPS 1440 mg/day, with a serum creatinine level of 140  $\mu$ mol/l (figure 1) and no gastrointestinal complaints, and has returned to full-time employment.

## 2. Discussion

In this patient, two consecutive reductions in MMF did not alleviate the symptoms of dyspepsia and nausea. After conversion to low-dose EC-MPS, his gastrointestinal symptoms resolved and did not return despite a subsequent increase to the recommended dose of EC-MPS. In our unit, we typically reduce the dose of mycophenolic acid by 50% if gastrointestinal side effects occur,<sup>[1,2]</sup> with discontinuation for one to 2 weeks if required, and reintroduction if the side effects subside. In our experience,



**Fig. 1.** Serum creatinine levels over time. **EC-MPS** = Enteric-coated mycophenolate sodium; **MMF** = mycophenolate mofetil.

however, dyspepsia does not often respond to dose reductions or discontinuations of MMF, and in such cases conversion of patients to EC-MPS can prove beneficial.

- Pelletier RP, Akin B, Henry ML, et al. The impact of mycophenolate mofetil dosing patterns on clinical outcome after renal transplantation. *Clin Transplant* 2003; 17: 200-5

## References

- Knoll GA, MacDonald I, Khan A, et al. Mycophenolate mofetil dose reduction and the risk of acute rejection after renal transplantation. *J Am Soc Nephrol* 2003; 14: 2381-6

Correspondence and offprints: *Murat Tuncer, MD, Akdeniz University Medical School, Antalya 07070, Turkey.*

Tel: +90 2422274343-66147; fax: +90 2422274444; e-mail: [mtuncer@akdeniz.edu.tr](mailto:mtuncer@akdeniz.edu.tr)