

# Long-term efficacy and safety of anti-hyperglycaemic agents in newonset diabetes after transplant: Results from outpatient-based 1-year follow-up and a brief review of treatment options

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## Abstract

**Background and aims:** Evaluation of long-term efficacy and safety of various anti-hyperglycaemic agents (AHA) for glycaemic control in NODAT, in stable kidney transplant recipients (KTRs) during 1-year outpatient follow-up.

**Methods:** We collected FPG, PPG, HbA1c, serum creatinine, eGFR, blood tacrolimus level, hypoglycaemia and body weight values from an existing database of KTRs diagnosed to have NODAT. Those newly initiated on AHA over 3 months post-transplant; received standard triple immunosuppressive therapy; and followed up for 1-year after referral, were included.

**Results:** In ninety-five patients' (Male  $\frac{1}{4}$  65), mean decrease at 1-year from baseline in FPG ( $185.01 \pm 62.11$  mg/dL), PPG ( $293.21 \pm 85.23$  mg/dL) and HbA1c ( $8.48 \pm 1.08\%$ ) was 67.09, 126.11 and 1.4 respectively ( $p < 0.0001$ ). At 1-year, mean HbA1c was  $7.08 \pm 0.38\%$ , ninety-one patients achieving HbA1c 7.5%. Fifty-two patients received oral combination therapy based on linagliptin/metformin/repaglinide/gliclazide, 19 received insulin-based regimen, and 24 received linagliptin monotherapy. Thirty patients reported hypoglycaemia (10 with gliclazide and 15 with insulin) and fifty patients

gained body-weight at 1-year. Mean serum creatinine and eGFR significantly improved by 0.29 and 15.77 from baseline of  $1.56 \pm 0.62$  mg/dL and  $53.95 \pm 16.10$  mL/min/1.73 m<sup>2</sup> respectively.

**Conclusions:** Significant proportion of NODAT patients achieved long-term glycemic control with improved renal function. Combination therapy was needed in most within 1-year. Linagliptin monotherapy was effective, without producing hypoglycaemia or weight gain.

## Biography

Dr Debmalya Sanyal has completed the studies MBBS(Honours), DTM&H, MD(Medicine), MRCP, FRCP, D.M.(Endocrinology), Specialty Certificate in Endocrinology & Diabetes (SCE, UK), FACE (USA).

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