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P207 -What happens to diabetes medications after kidney transplants?

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Introduction
Type 2 Diabetes mellitus (T2DM) affects approximately 2.8 million people in the UK. Many effective drugs used to treat T2DM are stopped with reducing glomerular filtration rate (GFR) leading to the majority of patients going for a renal transplant (RT) on; insulin, gliclazide and/or linagliptin. National guidance does not currently advise on how or when to manage T2DM post RT. We looked to see what agents were used post RT and whether on achieving GFR>30mls/min/1.75m2 beneficial hypoglycaemic agents were reintroduced.

Methods: This observational retrospective study collected clinical data and laboratory results from people with RT who had pre-existing T2DM from 2 separate centres. Available computer records were reviewed from 1/11/11-1/11/2017 (centre 1) and 1/07/2002-1/07/2018 (centre 2). Both centres used Basiliximab induction for RT with one centre using Campath in more recent years. All patients in this cohort were on triple maintenance immunosuppression: prednisolone, tacrolimus and mycophenolate mofetil. Stata was used for statistical analysis. The following reports observation of current practice across different regions.

Results: A total of 95 patients with T2DM received RT at these centres. 18 Female, 77 Male. Median age at RT 65 years (range 34-82). Ethnicity: 62 white, 4 black, 24 asian, 1 other, 4 unknown. T2DM medication pre-RT; insulin 52%(49), gliclazide 21%(20), gliptins 10%(9), thiazolidines 1%(1), diet control 16%(15). Post RT insulin 54%(52), gliclazide 12%(12), gliptins 14%(13), metformin 7%(7), GLP-1 1%(1), diet control 12%(12). Post RT there were more combination therapies than single agent use.

86% of the cohort reached a GFR >30mls/min/1.75m2 by six months. 96% of these reached this level of function by 3 months. Insulin requirements decreased in T2DM with GFR<30mls/min/1.75m2 whereas this increased in GFR>30mls/min/1.75m2 where other agents were not introduced. 4 people had Metformin reintroduced >2 years post RT. There was no significant difference in practice between centres. Two different regions consistently show opportunity for optimisation of diabetes medications following RT.

Conclusion: This study suggests that, in patients with type 2 diabetes mellitus, management of hypoglycaemic medication post-transplantation is often inappropriate. As renal function improves, optimisation of medication is often delayed and may lead to unnecessary reliance on insulin-containing regimes. We believe that specific guidelines should be introduced to guide the use of oral hypoglycaemic agents in the early post-transplant period.