



## Post-transplant Diabetes Mellitus and Diabetic Nephropathy

**Adegbenga B. Ademolu\***

Lagos State University Teaching Hospital Ikeja, Lagos, Nigeria

**\*Correspondence author:** Dr. Adegbenga AB, Medicine Department, Lagos State University Teaching Hospital Ikeja , Lagos, Nigeria, Tel: +2348033575940; E-mail: ademoluab@yahoo.com

**Received Date:** August 14, 2019; **Published Date:** August 16, 2019

### Editorial

Life expectancy is increasing in kidney transplant patients due to improved technology, improved surgical intervention techniques, improved pharmacological approach to management post operatively and better healthcare delivery with improved success rates. However this is not coming without new challenges to address. One of such new challenges is post-transplant diabetes mellitus which has become a common complication of organ transplantation (kidney transplant inclusive) due to the side effects of calcineurin inhibitors, immunosuppressant and steroids used for induction and maintenance of immunosuppression to prevent organ rejection in the transplant recipient.

I recently manage a lady in her fourth decade of life eight months post kidney transplant who pre transplant had chronic kidney disease secondary to chronic glomerulonephritis that progressed to end stage kidney disease and then had a renal transplant. She was also hepatitis B positive pre transplant .Post transplant she was on prednisolone and mycophenolate mofetil but subsequently developed post-transplant diabetes mellitus three months after being on steroids and the immunosuppressant for induction and maintenance of immunosuppression. She had survived the hyperacute and acute phase of post kidney transplant rejection but is now faced with the realities of post-transplant diabetes mellitus which is being managed.

Post-transplant diabetes mellitus is one of the metabolic complications of organ (including kidney) transplantation among other post-transplant morbidities. While efforts geared towards use of steroids and/or calcineurin

inhibitors free drugs post-transplant is on, post-transplant diabetes mellitus caused by these agents and other immunosuppressant cannot be overlooked if the overall life expectancy post kidney transplant is not to be cut short. The reason is diabetes mellitus as a disease entity whether primary or secondary is a cardiovascular risk factor associated with numerous risk , morbidity and mortality which can immunocompromise further an already immunosuppressed graft recipient. To consider that the diabetic kidney disease patient will develop a greater challenge for glycemic control post-transplant due to a superimposed "post-transplant diabetes mellitus " is another reason why drug induced hyperglycemia especially due to steroid use and calcineurin inhibitor use post kidney transplant must get the necessary attention it deserves.

Diabetes kidney disease as a form of chronic kidney disease with diabetes mellitus as the cause is well documented in literature. But with the advent of post-transplant diabetes mellitus in recent years, the research community need to look into this potentially emerging subset of chronic kidney disease induced by post-transplant diabetes mellitus. The reality that there may be an upsurge of more cases of diabetic nephropathy from post-transplant diabetes mellitus in the near future as more transplant patient survive longer is an indicator to turn the searchlight of scientist to this reality. The research community need to wake up prior to the immediate future time when these group of patient will form a significant proportion of post-transplant patients.

Also to be addressed on time is the early detection strategies and management modalities and guidelines for organ transplant survivors with post-transplant diabetes mellitus in order to maintain desirable glycaemic control. Questions like which diagnostic indexes among fasting blood sugar, two hours post prandial, random blood sugar, oral glucose tolerance test or glycosylated haemoglobin is/are most sensitive in diagnosing post-transplant diabetes mellitus need to be looked into extensively as early detection diagnostic strategies of the disease. The early effects of post-transplant diabetes mellitus on the transplanted kidney microvasculature equally is another important area of study that should be looked into since diabetes is a well-known cause of microangiopathy.

To be proactive on this subset of kidney transplant and organ transplant complication is to prepare against the days ahead when the challenge will be potentially overwhelming to not only the endocrinologist but also to the nephrologist, dietitian, diabetes coach, psychologist, clinical pharmacologist and the rest of the multidisciplinary medical team involved in management of people living with diabetes. It is our opinion that the research community and concerned societies and sponsors of research will focus their search light early enough on this aspect of post-transplant diabetes mellitus before it become a significant portion of the estimated increase in the global disease burden of diabetes mellitus which is projected to increase exponentially in a few years' time.