METABOLIC

POST-TRANSPLANTATION DIABETES MELLITUS (PTDM)

Management of hyperglycemia in the first 6 weeks after transplantation:

1) Immediate (<1 week) post-transplantation:

→ In critically ill patients: They should be treated with insulin therapy using a standard IV insulin infusion protocol. (Target plasma glucose readings are between 140 to 180 mg/dL).

→ In non-critically ill patients: Transition from insulin infusion to a SC. insulin regimen. (The target of the fasting blood glucose is <140 mg/dL and random blood glucose is <180 mg/dL).

2) Early (1 to 6 weeks) post-transplantation:

→ In most hospitalized patients with hyperglycemia requiring insulin (ie, a total daily dose of ≥20 units of insulin): Insulin therapy after hospital discharge is continued, preferably intermediate-acting neutral protamine Hagedorn (NPH) insulin, administered as a single daily dose (initially 5 to 10 units and adjusted based upon the afternoon glucose levels).

Alternative options include insulin glargine, or premeal short-acting insulin aspart or insulin lispro.

→ In patients with mild hyperglycemia and low insulin requirements (ie, a total daily dose of <20 units of insulin), the treatment is with oral hypoglycemic agents rather than insulin.

- Using agents that have a lower risk of hypoglycemia and have low or no renal excretion is favorably, such as **meglitinides:** (eg, repaglinide) or **dipeptidyl peptidase 4 (DPP-4) inhibitors**:(eg, sitagliptin, linagliptin, saxagliptin, alogliptin, vildagliptin).

- If a meglitinide or DPP-4 inhibitor cannot be used, a **sulfonylurea such as glipizide**, which has a lower risk of hypoglycemia in patients with kidney impairment, is another option [1]

[1]- Kidney transplantation in adults: Posttransplantation diabetes mellitus - UpToDate [Internet]. [cited 2021 Nov 14]. Available from: https://www.uptodate.com/contents/kidney-transplantation-in-adults-posttransplantation-diabetes-mellitus?search=kidney transplantation in posttransplantation &source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1#H791947624