



Nutrition Care Post-transplant.

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Objective

- To understand the nutrition management of Kidney Transplant Post Surgery.



Patient information

- BJ
- 57 years old, Caucasian woman
- Admitted 1/14/08
- Surgery : 1/15/08
- Discharged: 1/19/08
- Diagnoses: S/P Living Unrelated Renal Transplant (LURT)



Family History

No family history of renal failure or cancer.

Mother: Type 1 diabetic onset in her 30s, lived in to her 70s and had a sudden cardiac death.

Father: Died of congestive heart failure and coronary artery disease.



Past Medical / Surgical History

- Type 1 DM since 10years old
- ESRD
- HTN
- Osteoarthritis
- Osteoporosis
- Hyperparathyroidism
- Retinal laser therapy 1979
- Cataract excision.1988
- Status post live donor renal transplant from her sister. 1985 (fail after 20 years in 2005)
- Continuous Cyclic Peritoneal Dialysis (CCPD): one exchange at the middle of the day. Stared dialysis in 2006



Med list prior to admission

Osteoporosis

Actonel

HTN

Avapro

Anti-rejection

Prednisone

Peritoneal dialysis

Heparin

Diabetes

Humalog PRN before
meals.

Humulin N

Hyperparathyroidism

Calcitriol



Diet Order

- Day 1: NPO
- Day 2 : Clear liquid post transplant
- Day 3 - 6: 60gm Carbohydrate controlled diet.



Anthropometrics

Ht: 64"

Wt: 55kg

IBW: 55kg

%IBW: 100%

UBW: 50kg(per.pt)

%UBW: 110%

BMI: 21



Patient Interview

- Welcoming and positive
- Compared her first transplant experience to the current.
- Informed pt. about carbohydrate counting.
- Tests her blood sugar 5 times a day.



24 hr Recall:

- Considers herself “Semi-vegetarian”: avoids beef and fish with bone.
- Breakfast: Never ate breakfast due to low appetite due to peritoneal dialysis.
- Lunch: Low sodium soup (“Campbell select south western corn”), water, and tea and crackers.
- Dinner: ½ Scrambled egg, ½ cups of peas, ½ bagel. Tea.



Estimated Needs:

- Energy: (25-30kcal/kg)(IBW)
1250-1500Kcal
- Protein: (1.2-1.5g/kg)
60-75 gm



Pertinent lab values:

- A1C= 6.9 and DEXI: bed side blood glucose level day before consult.:

5:25pm -279

10:00pm- 247

4:30 am- 194

Medication List post-tranplant

■ Diabetes

Insulin Human (NPH)

Insulin Aspart

D50w

■ Pain

Oxycodone

Actetaminophen Enteral

■ Increase RBC

Niferex forte medication

■ Anitfungal

Clotrimazole Troche Enteral

■ Anti-viral

Ganciclovir Inj

■ Anti-biotic

Bactrim Enteral

■ Anit-rejection

Prograf

Prednisone Enteral

Mycophenolate mofetil.

■ Blood Pressure

Pantoprazole Enteral

Dexamethoasone Inj



Nutrition complication and side effect of drug.

- Recipient never develop optimal renal function.
- Nutrition management will be same as patient with chronic renal failure.
- Anti-rejection Immunosuppressant effects: tremors, diarrhea, GI problems, increase appetite, BP, BG
- The immunosuppressive therapies are associated with metabolic side effects, such as protein hypercatabolism, hyperlipidemia, hypertension, hyperkalemia, hypophosphatemia, hypomagnesaemia, and interference of vitamin D metabolism.

Nutrition complication

Hyperlipidemia	insulin resistance in peripheral tissue, with impaired synthesis of lipoprotein lipase, together with persistent responsiveness of liver to the elevated plasma insulin levels, leading to enhanced lipoprotein synthesis.
Hypertension	due to activation of the rennin-angiotensin system, acute and chronic rejection of kidneys, and renal artery stenosis.
Hyperkalemia	the suppression of the rennin-aldosterone system and altered distribution of potassium between the intra and extracellular compartments may cause hyperkalemia.
Hypophosphatemia	caused by bone resorption associated with persistent hyperparathoidism and effects of steroids on calcium, phosphorus, and vitamin D metabolism.
Hypomagnesaemia	immunosuppressant induces renal magnesium wasting.

Factors affecting mineral metabolism in recipients of renal transplants.

Effects of glucocorticoid immunosuppressive therapy

Increase hepatic gluconeogenesis associated with increased catabolism of amino acids and proteins.

Inhibition of osteoblast division, maturation, and function.

Inhibition of calcitriol-dependent absorption of calcium and phosphorus by the gut.

Increased urinary excretion of calcium and phosphorus

Effects of incomplete restoration of normal renal function

Persistent hyperparathyroidism related to reduced glomerular filtration rate

Parathyroid hormone-independent renal leak of phosphate.



Goal:

- **Meet > 75 % estimated nutrient goal.**
- **Preprandial less than 110.**
- **Maintain lean body mass.**



Recommendation

- Continue on 60 gm carbohydrate diet.
- Review carbohydrate counting.
- Review heart healthy post transplant diet.

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Dietetic intern



Discharge summary :

- 1) Diet: resume ADA diet of 75mg Carbohydrate or less.
- 2) Check blood pressure twice a day and bring blood pressure log to clinic.
- 3) call for symptoms of low blood sugar including mental confusion, nausea, or vomiting.
- 4) Get blood work twice a week and not to take prograf until her blood work was done.
- 5) Call if any fever, nausea, vomiting, diarrhea, or constipation or if any signs or symptoms of wound infections, redness, swelling, or discharge from her incisions.



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