

52-year-old man with secondary diabetes mellitus

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History of Present Illness

- 52-year-old man
- History of alcohol abuse and chronic pancreatitis
- December 2007 underwent total pancreatectomy and islet cell transplantation at UIC for chronic pancreatitis, islet transplant failed
- Diabetes mellitus secondary to pancreatectomy

Past Medical History

- Chronic pancreatitis s/p pancreatectomy
- Malabsorption/Malnutrition
- Endocarditis
- Gastroparesis
- Bilateral peripheral neuropathy
- Chronic abdominal pain
- Chronic narcotic use

History

- | | |
|--|--|
| ■ Family History | ■ Social History |
| □ No family history of diabetes mellitus or pancreatitis | □ Previous alcohol abuse |
| | □ Tobacco: 1 ppd for the last 30 years |
| | □ Divorced with 4 children |
| | □ One of his children lives with him |
| | □ On disability |

Diabetes Management

- Started on Animus pump in 2008 at UIC
- Referred to U of C Endocrine Clinic by gastroenterology in 2009
- Described weight loss (150 – 115 pounds since surgery), poor appetite and malabsorption since surgery
- Basal rate of 0.45 units Novolog/hour
- Multiple episodes of hypoglycemia when attempting to use insulin to carbohydrate ratio with meals
 - Correcting elevated blood sugar two hours after meals with a correction ratio of 1 unit of Novolog for every 90 mg/dL of blood glucose → results in hyperglycemia but fewer episodes of hypoglycemia
- Hemoglobin A1c of 8.4%

Recent Hospitalizations

- December 2011 admitted for initiation of TPN (Weight – 110 pounds, Height 5'11")
 - 10% of calories by mouth
 - Tube feeds with Peptamen 1.5 at 75 mL/hr from 8pm – 8am (J-tube placed 1/2011)
 - Basal rate of 0.55 units Novolog/hour when he is off tube feeds
 - Basal rate of 0.70 units Novolog/hour when tube feeds are on

Hospital Course

- Per GI Note, over the past 3 weeks the patient reports
 - feeling weaker
 - lower leg swelling
 - feeling cold all the time
 - constant abdominal pain
- plan restart TPN

Hospital Course

- Pt did not bring pump
- Started on Lantus as basal insulin and then NPH q8h for continuous tube feeds
- Initially blood sugars well-controlled
- Patient found to have *E. faecalis* bacteremia, mitral valve vegetations with severe regurgitation

Hospital Course

- Went to OR for Mitral Valve Replacement on HD # 16
- Appetite dramatically improved post-operatively
- Hyperglycemia with blood sugars elevated to the 380s mg/dL – associated with snacking
- Reinforced need for insulin with all snacks
- Discharged home with plan to resume pump with intravenous antibiotics and TPN

Readmitted 12 days later

- Presented for follow-up cardiology appointment with son
- Patient noted to be disoriented
- Insulin pump and PICC line were no longer in place since the day prior to admission
- Noted to be confused

Laboratory Studies

121	79	43	832	8.9	7.6	3.2
6.1	18	1.5			0.4	
				10.1	40	28
8.4			160		127	

Beta-hydroxybutyrate = 8.57 mmol/L

HgA1c = 8.1%

Calculated Anion Gap: 24

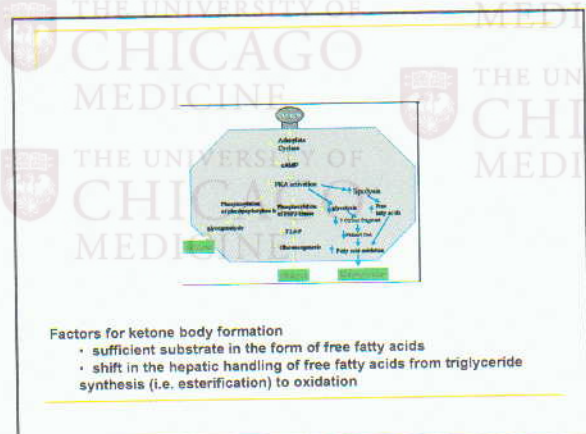
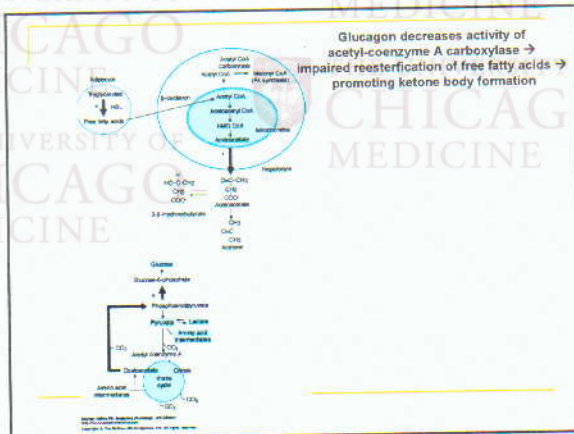
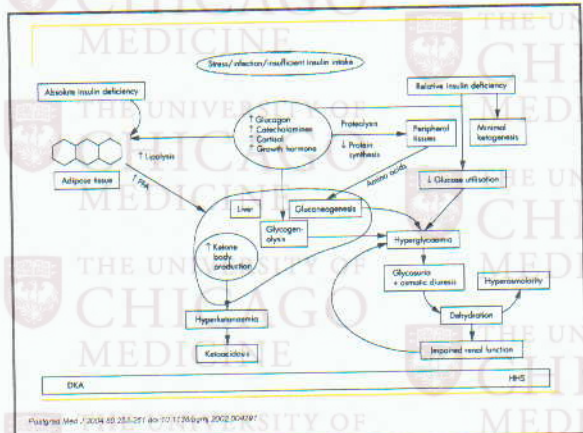
Lactic acid = 1.1 mEq/L Alcohol < 25 mg/dL

Human islet of Langerhans



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Return to Patient

- Discharged to Skilled Nursing Facility to complete intravenous antibiotics
- Continued on basal/bolus insulin regimen
- Follow-up appointment scheduled for this month

Take Home Points

- Diabetes Mellitus secondary to pancreatectomy
 - Insulin sensitive at the periphery
 - Greater risk for hypoglycemia
 - May be less likely to develop DKA but still at risk

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