



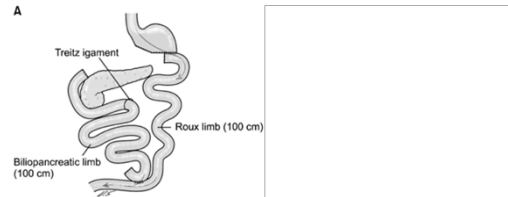
Back to Case

- 55 y/o F with fatigue/diarrhea/malabsorption?
- PMH:
 - 2000 - Roux en y gastric bypass surgery
 - 2002 - Adhesions - LOA surgery
 - 2007 - 2013 - Multiple SBO's - both surgically and medically managed
 - 2014 - Partial colectomy
 - Iron deficiency anemia
- Meds included:
 - 2000units Vitamin D, 2 lomotil capsules BID, 2 imodium capsules BID, synthroid, iron infusions q 2 months

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Bilroth II w/ Long Roux Limb



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Case cont.

- Ht: 154cm (5' 1") Wt: 62kg (138#) UBW: 63kg (140#)
- Diet: Regular—eats constantly
- Labs:
 - B12 - 6569 pmol/L (891)
 - Methylmalonic acid - 1.12 (nl = < 0.40)
 - 25-OH Vit D, Vit A & Vit E - WNL
 - Ferritin - ↓↓
 - 48 hour fecal fat collection results:
 - Per day out: 1800mL; 72 g fat (120g fat/day ingested)

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- What are her potential barriers to nutrition repletion?

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Case cont.

- At risk for, or already has:
 - ✓ Gastroparesis
 - ✓ Hypochlorhydria
 - ✓ SBBO
 - ✓ Loss of surface area due to longer roux limb
 - ✓ Intestinal hurry
 - ✓ Pancreato-biliary to nutrient "mismatch"

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Recommendations

- 1) Goal weight = 63kg (140#)
- 2) Diet changes:
 - Reduce fat to 60 grams per day; increase complex CHO.
 - Limit fruit to 3, 1/3 cup portions per day
 - No sugar alcohols, no fruit juice or dried fruits.
- 3) Medication changes:
 - Start Viokace - 10,400unit tabs, 4 tabs w/ meals & 2 w/ snacks.
 - 4mg imodium tablets, crushed, q 6 hours, 30-60 minutes before meals and bedtime.
 - Possible empiric treatment for SBBO if above fails

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Recommendations cont.

- 4) DXA scan
 - If osteoporotic, refer to endocrinology.
- 5) Supplement changes:
 - Start therapeutic vitamin/mineral daily
 - Start 1000mcg B12 SQ shots monthly
 - Try 1.0mL Fer-in-Sol (Fe sulfate) drops, 15mg elemental iron/mL, BID
 - Add to one tablespoon of applesauce, etc.
 - One 60mg Vitamelt C chewable concurrent with above
- 6) Recheck 25-OH vitamin D & ferritin in 2 months

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Case 2

- 55 y/o M w/ difficulty gaining wt, diarrhea, dehydration
- Wheelchair bound pretty much
- PMH/PSH:
 - 6/93 - Lap Nissen's fundoplication 2° severe GERD
 - 7/2/98 - slipped/revised c/b → gastroparesis
 - 10/98 - TIA/CVA/HTN
 - 6/12/00 - Near total gastrectomy w/ roux en y & surgical j placed
 - Osteoporosis (3 vertebral fx)
 - Autonomic dysfunction/syncopal episodes
 - 7/03 - ventral hernia repair; followed by multiple hernia repairs
 - 10/05 - Hickman for supplemental TPN
 - 3/08 - narcotic bowel syndrome - weaned off

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Case 2 cont.

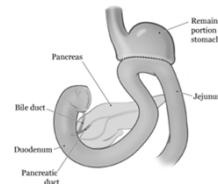
- Ht. 5'5" Wt. 134# UBW: 160# IBW: ~140#
- Goal wt = 140-150#
- Diet: NPO
- TE: Peptamen 1.5, FS @ 80 mL q hr during day via 8 Fr non-latex tube x 5 cans q night (1875 kcal) via j-tube
- Hydration: Pedialyte @ 100 mL/hr x 1 liter+/day
- Nutritional supplements: 1000mcg B12 q month, calcium, calciferol
- Meds: noroxin, Carafate, forteo, calciferol, calcium

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Case cont.

- Stool: diarrhea
- UOP: admitted for hydration periodically
- 72 hour fecal fat - 39 g out/day



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- What are his barriers to absorption?

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Potential Barriers

- 1) Pancreatobiliary mismatch due to his anatomy w/ inadequate pancreatic enzyme replacement
- 2) Potential acid production if gastric remnant present w/ potential denaturing of any exogenous enzymes started.
- 3) Relative short gut due to jejunal tube placed below roux limb to prevent regurg of his pancreato-biliary secretions.
- 4) Probable chronic SBBO
- 5) Consider component of ileal braking from malabsorption perceived as nausea.

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Recommendations

- 1) Obtain 25-OH vit D, HgbA1C, Vit A, E, MMA, ferritin, Folate
- 2) Change TF to Perative, FS @ 80 mL / hour initially x 6 cans - use full strength at first, but may trial $\frac{3}{4}$ in future if we can't get the rate up.
- 3) Add 1/8 teaspoon of Viokase powder to each can of tube feeding infused—first put it in 25 mL of *lukewarm* water to mix it up before adding to the bag of tube feeding.
- 4) Change water & Gatorade to Ceralyte - 1500mL/day as med and water flushes.
- 5) Liquid Imodium - $\frac{1}{2}$ dose BID
- 6) Expect pt will need to continue cycled treatment for SBBO.

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Follow Up

- 2 weeks later:
 - “The diarrhea has improved significantly--the best in over a year. I have put on a couple of pounds. Also the dumping episodes in the morning have improved. For the first time in a year the stools are almost formed. The foul odor also has improved.”
- One month later: wt = 137#
- 2 months later: wt = 140# (on less kcal than originally)
 - Wt plateau—TF increased to 6 cans/day
- 5 months later: wt = 145#
- 7 months later: wt = 150#

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Summary



- ◆ Recognize pts with GI alterations
- ◆ Identify all barriers
 - Nutrient delivery/absorption
 - Inadequate medication dosing
 - Social/financial issues, etc.
- ◆ Set goals
- ◆ Treat
- ◆ Reevaluate

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