Nutritional Complications of Duodenal Switch

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Major complications

- Among complications more common ones include:
  - Protein deficiency
  - vitamin D deficiency
  - vitamin K and A deficiency
  - electrolytes
  - iron
  - diarrhea and flatus
- Other deficiencies such as B12 and other vitamin B deficiencies may occur but are less common
Management of nutritional deficiencies

- Typically most of these issues can be addressed by nutritional counseling and supplementation of nutrition.
- For vitamins, important to give water-soluble analogs of fat-soluble vitamins.
- Examples include ADEKs made by Scandipharm or other vitamin companies.
Nutritional modification

- Ensuring adequate protein consumption and decreasing carbohydrates and fat in diet is important.
- Reduction in fat will decrease number of stools and improve consistency.
- Reduction in carbohydrate will decrease flatus.
- Many patients will be lactose intolerant.
Supplemental nutrition

- Occasionally enteral nutrition using an elemental formula or TPN is needed
- This is often in the setting of severe nausea
- If a surgical feeding tube is needed, I will position it in the biliary limb
- Usually, a large bore tube that is 16 or 18 French is placed laparoscopically
- This is often a temporary measure
Operative techniques to reduce malnutrition

- Overall rare but options include
- Kissing anastomosis
- Lengthening common channel
- Complete reversal
Kissing anastomosis

- Technical details
Lengthening common channel

- Technical details
Reversing the anastomosis

- Technical details
Conclusions

- Most nutritional deficiencies can be managed surgically
- some will require surgical intervention such as a feeding tube
- rarely the operation will need to be made less severe due to intolerable diarrhea, or the nutritional effects