CLINICAL CASE
A 48 year old male, presents at the emergency department with generalized abdominal tenderness and blood in vomiting (hematemesis). He has a past medical history of abdominal pain which disappears on eating, black stools (malena) and heart burn which has resulted in decreased appetite. He has been leading a stressful life and working long hours for his upcoming task. He is a chain smoker and drinks occasionally.
Physical examination reveals pallor of the conjunctiva and poor oral hygiene pulse 110, BP 100/60 and respiratory rate of 18/min. Palpation of the abdomen shows generalized tenderness in abdomen and marked rigidity. Bowel sounds are decreased. Laboratory investigations shows hemoglobin 09 g/dL, WBC 9000 g/dL, platelets 210,000, peripheral smear shows microcytic hypochromic red blood cells. ECG shows ventricular tachycardia. Chest X-ray reveals air under the diaphragm (which is not a normal finding).
Endoscopy report shows a 3cm punched out oval lesion on the superior part of the posterior wall of the intestine

QUESTIONS
1. Which area of the gastrointestinal tract is most likely to be involved in the above patient?
2. What is the embryological arterial supply of the affected structure?
3. What is the etiology of the gas under the diaphragm?
4. Which is the anatomical landmark of the termination of the involved area?
5. What is the reason of generalized abdominal tenderness?
6. Which artery is present in the posterior relation?
7. What is the reason for the hypochromic microcytic RBC?
8. Name the peritoneal relation/s of the affected area?
9. What is the significance of the Chest X ray in the present case?
10. What are the risk factors for the disease?