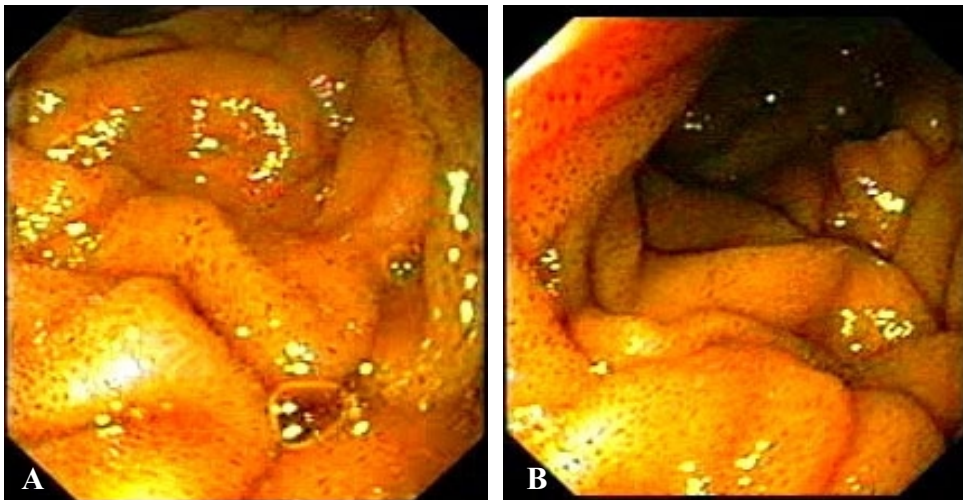


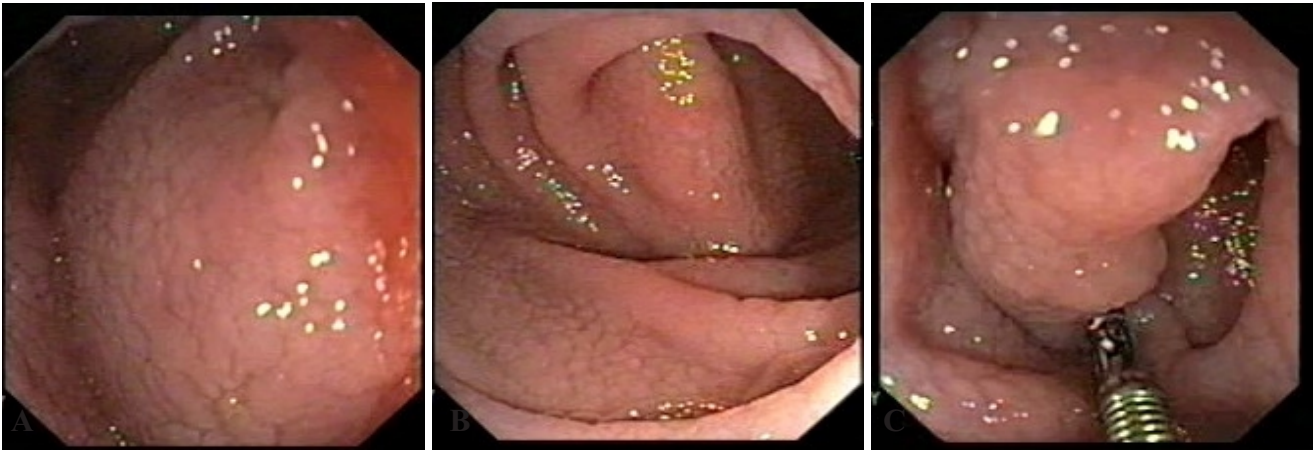
Apichart Suramethakul, M.D.
Rungsun Rerknimitr, M.D.

1) A 50-year old female, with a history of hypertension and dyspepsia underwent gastroscopy. What is the diagnosis and associated disease ?



The Gastroscopy revealed a discrete, flat, small dark brown spots (a pepper sprinkled appearance) as seen with endoscopy of the duodenal mucosa. It is a very rare and reversible condition. This pigment corresponds principally to accumulation of ferrous sulfide and calcium inside the lysosomes of macrophages, located in the lamina propria. This condition occurs predominantly in elderly female patients and is strongly linked to chronic illnesses, including systemic hypertension, chronic renal failure, upper gastrointestinal bleeding and diabetes mellitus. Moreover, it is related to the use of common medications, including hydralazine, propranolol, thiazide diuretics, furosemide and ferrous sulfate. From an etiological point of view, it is suggested that in cases of melanosis duodeni, iron metabolism may be impaired and iron may pool within the macrophages. However, this etiology and its detailed clinical significance remain obscure.

2) A 14-year old male patient, with a history of chronic diarrhea for 6 months. What is the diagnosis ?



Gastroscopy revealed mosaic appearance and loss of duodenal folds or scalloping fold which is significantly associated with duodenal villous atrophy. This is compatible with celiac sprue.

Celiac sprue is a disorder of the immune system whereby the normal lining of the small bowel is damaged by an allergic type of reaction from a protein in wheat, barley and rye called gluten. The normal frond-like tiny tubular projections within the jejunum, called villi, are badly damaged. With the result of gluten immune reaction, nutrients are no longer absorbed properly, thus malnutrition occurs. Compared to the previous normal lining with its numerous pinpoint projections of light, this lining is smooth and reddened or inflamed. This is a very abnormal appearance. The associated diseases are dermatitis herpetiformis, DM, selective Ig A deficiency and Down syndrome.



3) A 57-year old male patient, presented with anemia. His stool examination, gastroscopy and colonoscopy results were unremarkable. Subsequently, he underwent capsule endoscopy. What is the diagnosis?

Pictures revealed movable, round parasite in jejunum. There was active blood oozing from the mucosa that attached by the parasite. The most likely organism is a hook worm on duty.

Hook worm; *Necator americanus* and *Ancylostoma duodenale* are two species that infested in human. Majority of patient presented with anemic symptoms. The standard test is stool exam for parasite and ova. For unknown reason, this patient had a negative study from the stool test.