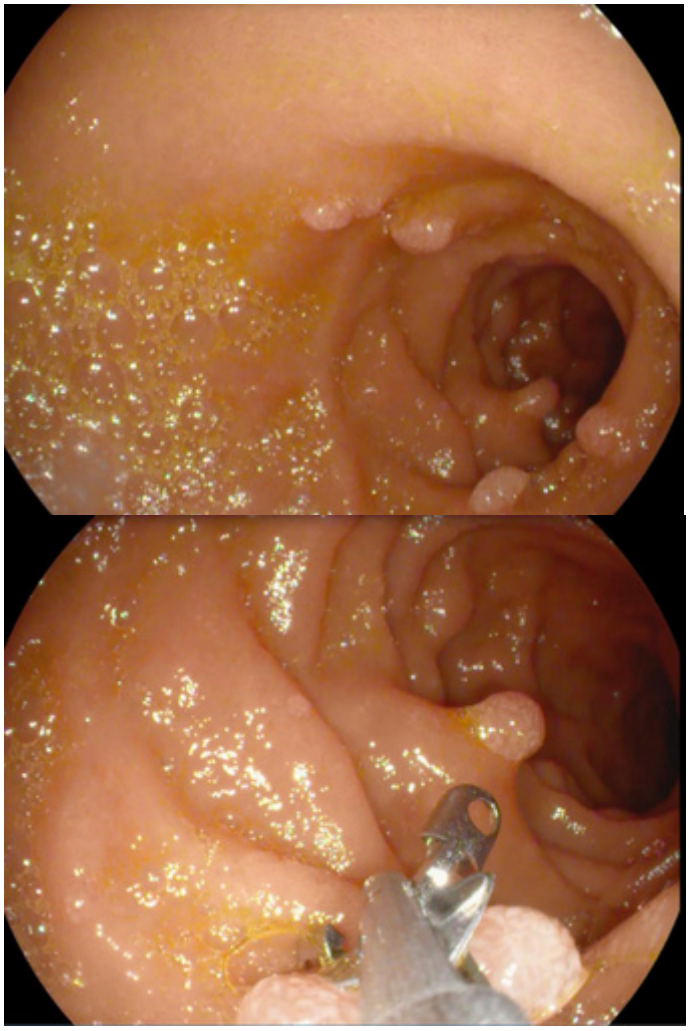
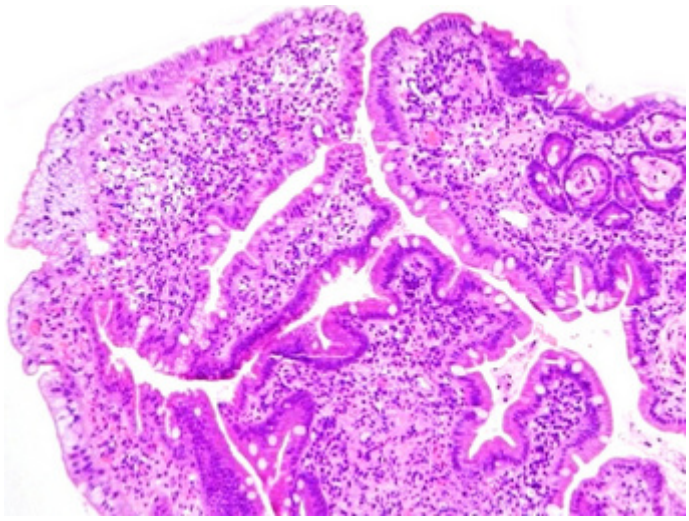
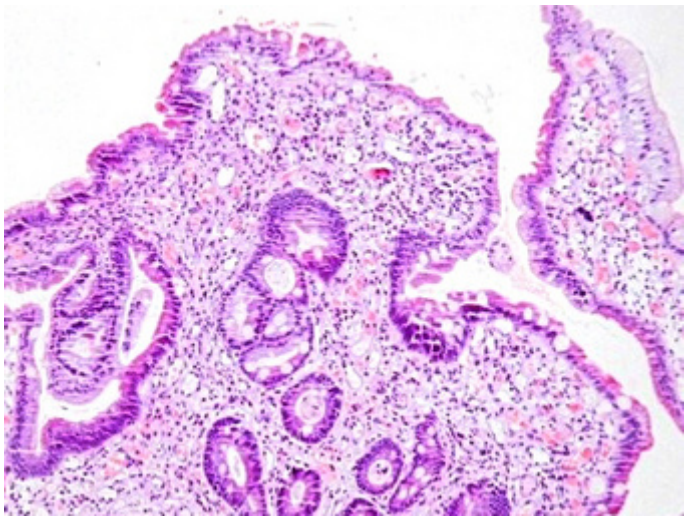
February 2020

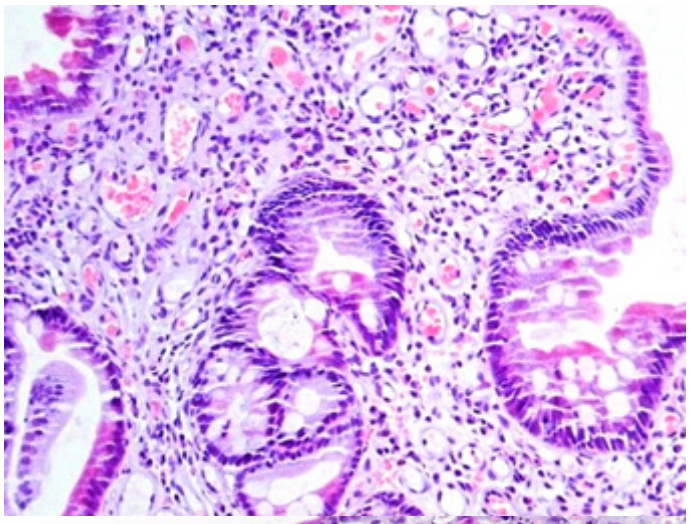
Duodenal polyps in a 63-year-old female patient with liver cirrhosis.

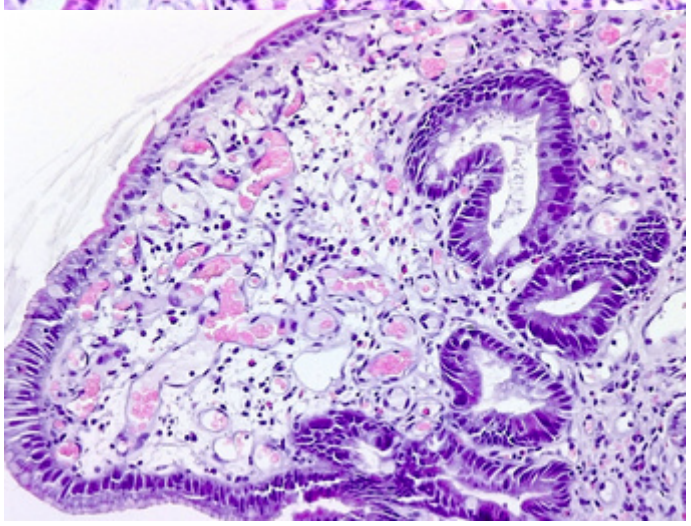
What is your diagnosis?

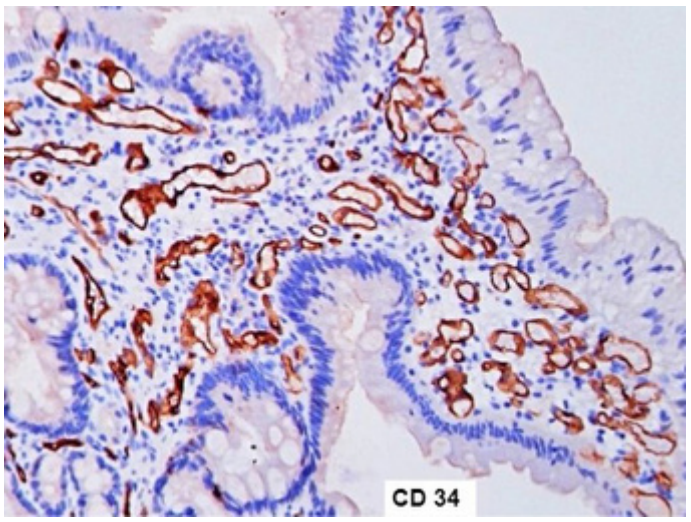








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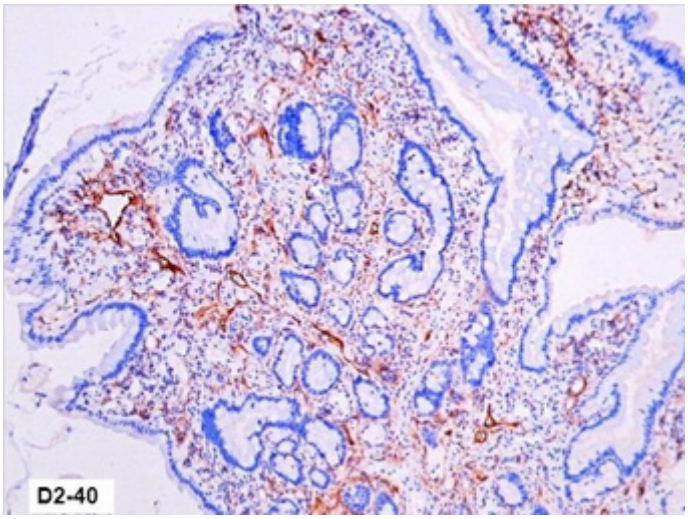

Diagnosis:

Portal hypertensive polyps/polyposis of the duodenum.

Comment:

Upper endoscopy was performed in a 63-year-old female patient with known liver cirrhosis due to chronic HCV infection and showed grade I-II oesophageal varices and portal hypertensive gastropathy. In addition, multiple polyps, measuring 2 to 3 millimetres in largest diameter were detected in the duodenal bulb and second part of the duodenum (Panels A-B). Biopsies were taken.

Microscopically, the polypoid duodenal mucosa presented with preserved villous architecture. It however demonstrated some enlarged villi, foveolar metaplasia of the surface epithelium and numerous ectatic and congested capillaries in the lamina propria. There was no pathologic inflammation or epithelial dysplasia (Panels C-F). Immunohistochemistry was performed, and the ectatic vessels were marked with antibodies against CD34 (Panel G) and D2-40 (Panel H). A final diagnosis of portal hypertensive polyps/polyposis of the duodenum was made.

Portal hypertension can affect all the gastrointestinal tract, causing oesophageal varices, gastric varices (cardia and fundus), portal hypertensive gastropathy (body and fundus), portal hypertensive enteropathy, portal hypertensive colopathy, and GAVE (gastric antral vascular ectasia). Portal hypertensive duodenopathy (PHD) includes patchy or diffuse congestion of the duodenal mucosa, duodenal varices, oedema, friability, and erosions or ulcerations. The prevalence of PHD in cirrhotic patients with portal hypertension ranges from 8.4% to 51.4%. Duodenal polyps are a rare manifestation of PHD and have been described only in case reports and small case series. Most cases present as multiple lesions, ranging in size, from 1-2 mm to 3 cm, located in first and second part of the duodenum. There is no gender predilection, ages of patients ranging from 1 to 73 years old. Histological findings of the duodenal polyps described in the literature included: vascular ectasia/congestion/thrombi, gastric foveolar metaplasia, reactive nuclear atypia, fibrosis and smooth muscle proliferation.

In conclusion, duodenal polyps are a rare manifestation of portal hypertension with typical microscopic findings. Discovering multiple polyps in a patient with history of liver cirrhosis should raise the suspicion for this diagnosis.

For further reading:

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- Menchén L, Ripoll C, Marín-Jiménez I, Colón A, Gómez-Camarero J, Gonzalez-Asanza C, Menchén P, Cos E, Bañares R. Prevalence of portal hypertensive duodenopathy in cirrhosis: clinical and haemodynamic features. Eur J Gastroenterol Hepatol. 2006; 18: 649-53.
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- Gurung A, Jaffe PE, Zhang X. Duodenal polyposis secondary to portal hypertensive duodenopathy. World J Gastrointest Endosc. 2015; 7: 1257-61. Kara D, Hüsing-Kabar A, Schmidt H, Grünewald I, Chandhok G, Maschmeier M, Kabar I. Portal Hypertensive Polyposis in Advanced Liver Cirrhosis: The Unknown Entity? Can J Gastroenterol Hepatol. 2018 Aug 1;2018:2182784.

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