



Interesting Images

A Rare Case of Duodenal Pseudomelanosis

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Abstract: A black-spotted duodenal mucosa was observed during endoscopy of a man with several comorbidities including hypertension and end-stage kidney disease. Histopathological examination revealed pigment-laden macrophages in the lamina propria of the duodenal villi, which was consistent with duodenal pseudomelanosis.

Keywords: pseudomelanosis; duodenal; duodeni; pigmentation; iron; endoscopy



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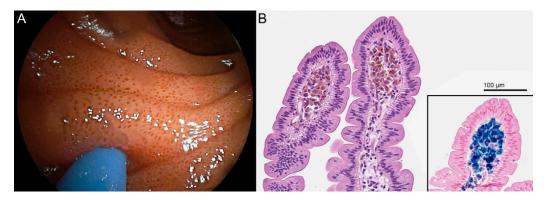
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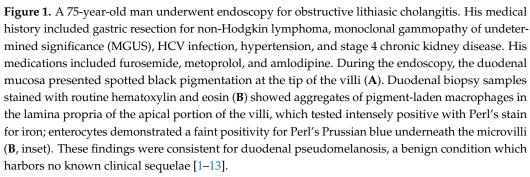
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References

 Giusto, D.; Jakate, S. Pseudomelanosis duodeni: Associated with multiple clinical conditions and unpredictable iron stainability— A case series. Endoscopy 2008, 40, 165–167. [CrossRef] [PubMed]

- 2. de Magalhães Costa, M.H.D.M.; Pegado, M.G.F.; Vargas, C.; Castro, M.E.C.; Madi, K.; Nunes, T.; Zaltman, C. Pseudomelanosis duodeni associated with chronic renal failure. *World J. Gastroenterol.* **2012**, *18*, 1414–1416. [CrossRef] [PubMed]
- 3. Kim, S.Y.; Choung, R.S.; Kwon, B.S.; Hyun, J.J.; Jung, S.W.; Koo, J.S.; Yim, H.J.; Lee, S.W.; Choi, J.H. Small Bowel Pseudomelanosis Associated with Oral Iron Therapy. *J. Korean Med. Sci.* **2013**, *28*, 1103–1106. [CrossRef] [PubMed]
- 4. Nakanishi, Y.; Jetly-Shridhar, R.; De Felice, K. A Case of Pseudomelanosis Duodeni: Striking Endoscopic Features with Subtle but Characteristic Pathologic Findings. *Int. J. Surg. Pathol.* **2019**, 27, 765–766. [CrossRef] [PubMed]
- 5. Tang, S.-J.; Zhang, S.; Grunes, D.E. Gastric and duodenal pseudomelanosis: A new insight into its pathogenesis. *VideoGIE* **2019**, *4*, 467–468. [CrossRef] [PubMed]
- 6. Shimamura, Y.; Akram, H.; Winer, S.; Marcon, N. Pseudomelanosis Duodeni and Duodenal Polyp. *Intern. Med.* **2018**, 57, 1049–1050. [CrossRef] [PubMed]
- 7. Mundi, I.; Pankaj, R.; Chhabra, M.; Banerjee, A.K. Pseudomelanosis Duodeni. *Int. J. Surg. Pathol.* **2017**, 25, 165. [CrossRef] [PubMed]
- 8. Abdelwareth, A.; Molyneux, A.; Madhotra, R.; Ishaq, S.; Rostami, K. Small bowel pigmentation. *Gastroenterol. Hepatol. Bed Bench* **2016**, *9*, 343–344. [PubMed]
- 9. Coelho, R.; Ribeiro, A.; Silva, R.; Rios, E.; Silva, M.; Macedo, G. Pseudomelanosis duodeni: Is there a common denominator? *Rev. Española Enferm. Dig.* **2016**, *108*, 658–659.
- 10. Kothadia, J.P.; Kaminski, M.; Giashuddin, S. Duodenal siderosis: A rare clinical finding in a patient with duodenal inflammation. *Ann. Gastroenterol.* **2016**, 29, 379. [PubMed]
- 11. Sathyamurthy, A.; Chela, H.; Arif, Z.; Holly, J.; Arif, M. Pseudomelanosis Duodeni. *ACG Case Rep. J.* **2015**, 2, 72–73. [CrossRef] [PubMed]
- 12. Siderits, R.; Hazra, A.; Mikhail, N.; Chiaffarano, J.; Lou, W.; Fyfe, B. Endoscopically identified pseudomelanosis duodeni: Striking yet harmless. *Gastrointest*. *Endosc*. **2014**, *80*, 508–510. [CrossRef] [PubMed]
- 13. Qureshi, N.U.; Younus, M.F.; Alavi, K.; Sheikh, M.Y. Gastric and Duodenal Pseudomelanosis: An Extended Unusual Finding in a Patient with End Stage Kidney Disease. *Case Rep. Gastrointest. Med.* **2016**, 2016, 2861086. [CrossRef] [PubMed]