Intramural hematoma of the colon caused by double-balloon enteroscopy in a patient with chronic disseminated intravascular coagulation

A 63-year-old man with a history of surgery for thoracic aortic dissection was transferred to our hospital with obscure gastrointestinal bleeding (OGIB) and bloody stools. Laboratory examination revealed the following results: hemoglobin, 9.9 g/dL; platelets, 94,000/µL; creatinine, 1.29 mg/dL. Video capsule endoscopy following anterograde and retrograde double-balloon enteroscopy (DBE) could not identify the bleeding source. Fresh bloody stools recurred 4 days after the resumption of feeding and the patient required transfusion. Emergency colonoscopy revealed an intramural hematoma in the sigmoid colon, with rupture and bleeding into the surrounding mucosa (\textit{Fig. 1}). Contrast-enhanced computed tomography (CT) scans showing an aortic dissection running from: \textbf{a} the ascending aorta to; \textbf{b} the abdominal aorta, along with a mass partially obstructing the sigmoid colon (yellow arrow) (\textit{Fig. 2}). Laboratory data indicated disseminated intravascular coagulation (DIC): platelets, 96,000/µL; prothrombin time, 13.5 seconds; fibrinogen, 69 mg/dL; fibrin/fibrinogen degradation products, 105 µg/dL; D-dimer, 99 µg/dL; plasmin-α2-plasmin inhibitor complex, 11.4 µg/mL; thrombin-antithrombin III complex, 49.5 ng/mL. We diagnosed an intramural hematoma of the colon due to chronic DIC associated with aortic dissection.

The patient was not a candidate for surgery for the aortic dissection because of his comorbidities. Continuous intravenous heparin (15,000 units/day) improved the laboratory abnormalities. Follow-up colonoscopy 16 days after the initial treatment showed healing ulceration (\textit{Fig. 3}). The patient was changed to oral warfarin, following which no recurrent bleeding was observed. Bleeding associated with DBE is rare and mostly follows polypectomy or biopsy [1]. Intramural hematoma of the colon is rare but can be the result of blunt trauma typically in the presence of anticoagulant therapy or other hematologic disease [2]. In this case, DBE compressed the mucosa, resulting in an intramural hematoma of the colon, under conditions of chronic DIC, which is a rare finding often associated with aortic aneurysm and dissection [3]. Surgery is the primary treatment to eliminate the cause but heparin has been reported to treat chronic DIC effectively [3]. We recommend careful examination of coagulation studies prior to DBE in patients with OGIB and an aortic aneurysm or dissection.

\textbf{Competing interests:} None

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\begin{figure}
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\includegraphics[width=\textwidth]{Fig_1.jpg}
\caption{Views during emergency colonoscopy showing an intramural hematoma at the junction of the descending and sigmoid colon, with rupture and bleeding into the surrounding mucosa.}
\end{figure}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Fig_2.jpg}
\caption{Contrast-enhanced computed tomography (CT) scans showing an aortic dissection running from: \textbf{a} the ascending aorta to; \textbf{b} the abdominal aorta, along with a mass partially obstructing the sigmoid colon (yellow arrow).}
\end{figure}

\begin{figure}
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\includegraphics[width=\textwidth]{Fig_3.jpg}
\caption{Follow-up colonoscopy showing improvement of the hematoma and healing ulceration 16 days after treatment.}
\end{figure}
References


Bibliography

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Corresponding author

Yasuaki Nagami, MD, PhD
Department of Gastroenterology
Osaka City University Graduate School of Medicine
1-4-3, Asahimachi, Abeno-ku
Osaka, 545-8585
Japan
Fax: +81-6-66453813
yasuaki1975@hotmail.com