

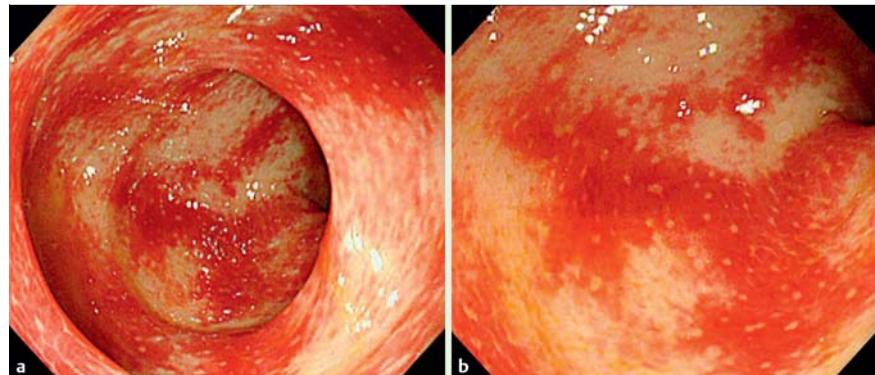
## Unique findings on endoscopy with narrow-band imaging in colonic lesions of Henoch–Schönlein purpura



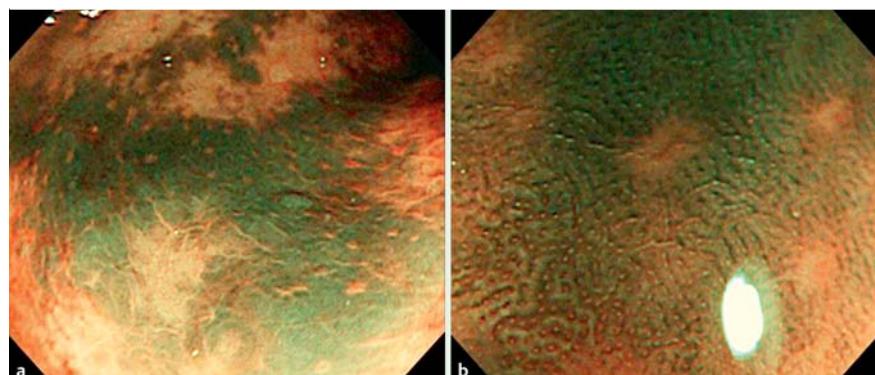
**Fig. 1** Purpura on the right thigh of a 61-year-old woman, who also had acute lower abdominal pain and bloody diarrhea.

A 61-year-old woman presented with acute lower abdominal pain, bloody diarrhea, and purpura on the right thigh (► Fig. 1). Urgent sigmoidoscopy revealed edema and multiple hyperemic ecchymotic lesions in the sigmoid colon and rectum (► Fig. 2), which appeared reddish on viewing with conventional white light and cyan on narrow-band imaging (NBI) (► Fig. 3). These lesions were indicative of bleeding in the subepithelial layer, which was confirmed on histopathologic examination (► Fig. 4). On the basis of the endoscopic findings and purpura on the thigh, the patient was clinically diagnosed as having Henoch–Schönlein purpura (HSP). This diagnosis was confirmed following histopathological examination of a skin biopsy specimen. Intravenous administration of prednisolone resulted in rapid improvement of the abdominal symptoms and the purpura of the thigh. Sigmoidoscopy carried out 6 days after the onset of the patient's symptoms, showed complete resolution of the edema and of the multiple hyperemic ecchymotic lesions (► Fig. 5).

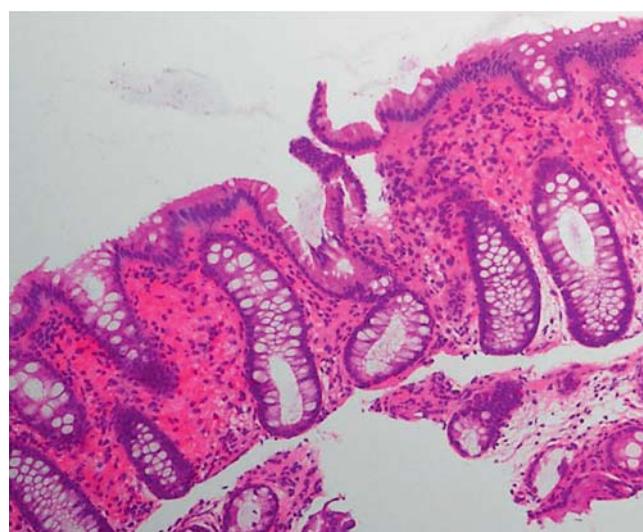
HSP is a disease characterized by systemic vasculitis and multiple organ involvement. The endoscopic gastrointestinal findings of HSP have been described previously and include erythema, edema, petechiae, ulcers, nodular changes, hematoma-like protrusions, and hyperemic ecchymotic lesions [1–3]. However, little is known about the endoscopic findings with NBI, which uses two discrete bands



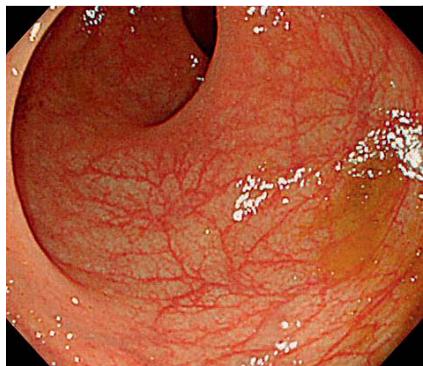
**Fig. 2** **a, b** Endoscopic view of the hyperemic ecchymotic lesions. Sigmoidoscopy shows edema and multiple hyperemic ecchymotic lesions in the sigmoid colon and rectum, resembling the purpura on skin in Henoch–Schönlein purpura (HSP). The hyperemic ecchymotic lesions appear reddish with conventional white light.



**Fig. 3** Endoscopic features of the hyperemic ecchymotic lesions on viewing with narrow-band imaging (NBI). **a** Hyperemic ecchymotic lesions displaying the characteristic cyan coloration. **b** Magnified view with NBI showing preservation of the surface pit pattern without any erosions or ulcers.



**Fig. 4** Histopathological section of a biopsy specimen taken from the sigmoid colon showing inflammatory cell infiltration and bleeding in the subepithelial layer.



**Fig. 5** A second sigmoidoscopy carried out after 6 days showing complete disappearance of the edema and of the multiple hyperemic ecchymotic lesions.

of light that are strongly absorbed by hemoglobin. The blue light makes the superficial capillary networks appear brown while the green light depicts the subepithelial vessels as cyan. Therefore bleeding in the subepithelial layer will be visualized as cyan areas because the narrow-

band blue light is absorbed by hemoglobin in the subepithelial layer. In HSP, bleeding in the subepithelial layer is a common occurrence and is caused by the vasculitis and deposition of immune complexes. Endoscopy with NBI displays these lesions as a characteristic cyan coloration so that subepithelial bleeding when present can be easily recognized. Our experience indicates that endoscopy with NBI may be useful for prompt diagnosis of the gastrointestinal lesions in HSP.

Endoscopy\_UCTN\_Code\_CCL\_1AC\_2AB

#### Competing interests: None

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- DOI** [http://dx.doi.org/  
10.1055/s-0032-1325978](http://dx.doi.org/10.1055/s-0032-1325978)  
*Endoscopy* 2013; 45: E65–E66  
© Georg Thieme Verlag KG  
Stuttgart · New York  
ISSN 0013-726X

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