

# The skin as a mirror of the gastrointestinal tract

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## Abstract

We present four cases of digestive bleeding whose skin manifestations guided diagnosis prior to endoscopy. These cases demonstrate the importance of a good physical examination of all patients rather than just focusing on laboratory tests.

## Keywords

Skin, bleeding, endoscopy, pemphigus.

Despite great technological advances in diagnosis of diseases, physical examination, particularly an appropriate skin examination, continues to play a leading role in the detection of gastrointestinal pathologies. The skin, the largest organ of the human body, has an area of 2 m<sup>2</sup> and a thickness that varies between 0.5 mm (on the eyelids) to 4 mm (on the heel). It weighs approximately 5 kg. (1) Many skin manifestations may indicate systemic diseases.

On the other hand, upper gastrointestinal bleeding, the most frequent emergency in gastroenterology, has a mortality rate between 5% and 14% and an incidence rate that varies geographically. Forty percent are caused by peptic ulcers while 10% to 24% are caused by esophageal varices. Rare causes account for less than 1% of etiologies, are very difficult to diagnose, but with a good physical examination they can be suspected. (2, 3)

This paper presents four rare causes of digestive bleeding that compromised the esophagus, stomach, duodenum and jejunum and whose diagnoses were guided by dermatological manifestations.

## CASE 1: VULGAR PEMPHIGUS

This 46-year-old female patient suffered an episode of hematemesis with expulsion of whitish membranes through her mouth during hospitalization. Upon physical examination, she was found to have multiple erosions and scaly plaques with vesicles that covered the entire body surface. After a baseline diagnosis of pemphigus vulgaris, endoscopy found that the epithelium of the esophageal sphincter was compatible with esophagitis dissecans superficialis (Figures 1A and 1B). (4)

## CASE 2: OSLER–WEBER–RENDU (OWR) SYNDROME

This 62-year-old patient was admitted to the emergency department due to hematemesis and melena. The physical examination revealed multiple red to purple papules and telangiectasias on the patient's lips, tongue and face. OWR syndrome was suspected, and endoscopy found multiple angiodysplasias in the patient's stomach (Figures 1C and 1D). (5)

### CASE 3: HENOCH–SCHÖNLEIN PURPURA (HSP),

This 28-year-old patient was admitted to the emergency department because of episodes of coffee ground emesis associated with arthralgia, myalgia, and purple lesions on the knees and buttocks. HSP was suspected. Endoscopy found severe edema, erythema and erosion with thickening and infiltration of the mucosa in the duodenum. The patient's platelet count was 90,000 and there was no bleeding. Immunohistochemical study of a biopsy sample confirmed infiltration by immunoglobulin A (IgA) (Figures 1E and 1F). (6)

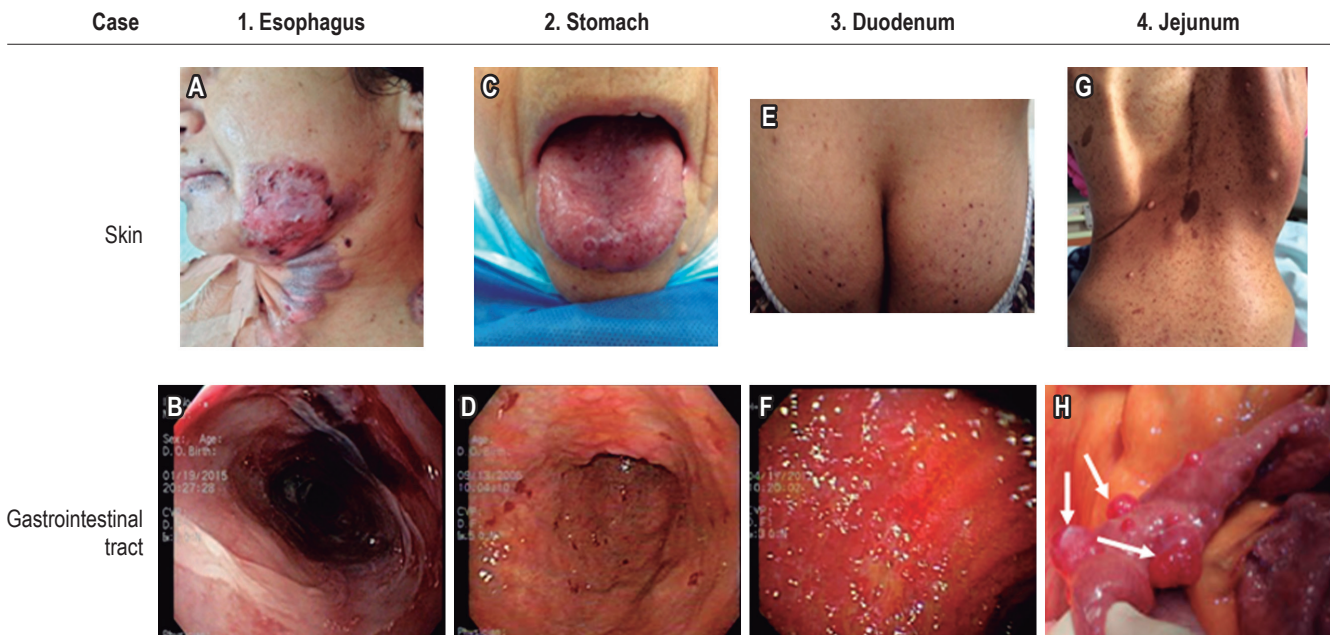
### CASE 4: TYPE 1 NEUROFIBROMATOSIS

This patient was a 29-year-old woman who was admitted to the emergency department because of coffee ground vomitus, melena and recurrent episodes of rectal hemorrhaging.

Physical examination showed “cafe au lait” spots and multiple neurofibromas associated with scoliosis. Endoscopy and colonoscopy found no lesions due to manifest occult digestive bleeding. Since balloon enteroscopy was not available, intraoperative laparoscopic enteroscopy found multiple masses that measured 10 mm to 40 mm in the proximal and middle jejunum. They were resected, and histopathological study confirmed that they were plexiform neurofibromas. (Figure 1G and H). (7)

### CONCLUSION

These cases show that, despite advances in technology, a good physical examination remains essential for evaluation of patients. Good physical examination can guide the physician in finding unsuspected diagnoses once a digestive endoscopy is performed.



**Figure 1.** **A.** Pemphigus Vulgar. Erosions, crusty scabbing from bleeding and scaly plaques with vesicles can be seen in the labial commissure. Erosions, scabs and brownish macules with vesicles can be seen towards the periphery of these lesions in the mandibular region and neck. **B.** Esophagogastroduodenoscopy. The exposed submucosa can be seen in the proximal part of the esophagus, and the completely scaled epithelium can be seen in the distal esophagus. Esophagitis dissecans superficialis was diagnosed. **C.** OWR syndrome. Multiple reddish-purplish papules and telangiectasias can be seen on the dorsal surface of the tongue. **D.** Esophagogastroduodenoscopy. Multiple angiodysplasias can be seen in the distal corpus. They were treated with argon plasma coagulation. **E.** HSP. Purple papules can be seen on the buttocks at different stages. Palpable purpura and post-inflammatory macules are resolving lesions. **F.** Esophagogastroduodenoscopy shows marked edema, thickening of the mucosa, erythema and erosions in the first portion of the duodenum secondary to infiltration by IgA which tested positive in immunohistochemistry of biopsies. **G.** Neurofibromatosis type 1. “Cafe au lait” spots, multiple freckles, papules and nodular neurofibromas can be seen. Scoliosis is also visible. **H.** Laparoscopic intraoperative enteroscopy finds and resects multiple neurofibromas (arrows) in the middle jejunum. They were resected in block, and a primary anastomosis was performed.

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