A rare case of digestive hemorrhage in an elderly patient: diagnosis and treatment difficulties

MARIANA JINGA1,2, C. JURCU1, FLORINA VASILESCU1, G. BECHEANU2, SIMONA HILDEGARD STANCU2,3, L. CIOBACA1, G. MIRCESCU2,3, V. JINGA2

1)“Dr. Carol Davila” Central University Emergency Military Hospital, Bucharest
2)“Carol Davila” University of Medicine and Pharmacy, Bucharest
3)“Carol Davila” Nephrology Hospital, Bucharest

Abstract
Abdominal pain represents one of the most common clinical conditions. However, there are some challenging cases in which an extensive work-up is mandatory for the diagnosis. We present the case report of a 65-year-old man admitted to our department for diffuse abdominal pain, nausea, vomiting, diarrhea, painful joints and rectal tenesmus. He initially had an urticarial rash, followed by palpable purpura involving the lower extremities. The diarrheic stools evolved towards melena. Endoscopic examination of the upper gastrointestinal tract showed hiatal hernia, superficial erosions in the stomach and multiple areas of deep and superficial ulcerations disseminated from the second to the third portion of the duodenum. Terminal ileum intubation at colonoscopy showed redness, edema, swelling, petechiae and ecchymosis, irregular erosions and ulcers. Endoscopic biopsy specimens showed non-specific inflammation. Computed tomography showed moderate ascites, small pleural effusion, mesenteric lymphadenopathy and small bowel wall thickening at the level of the second duodenum, proximal jejunum and segments of ileum. The urine analysis revealed microscopic hematuria with nephrotic range proteinuria, red cells and cellular casts. Therapy with corticosteroids and pulses of cyclophosphamide was started with significant clinical improvement.

Three weeks after the first admission, the patient developed an acute peritonitis due to an intestinal perforation and acute mesenteric ischemia. We concluded that the patient had a Henoch–Schönlein type vasculitis with acute mesenteric ischemia and perforation of the small bowel.

Keywords: Henoch–Schönlein purpura, abdominal pain, digestive hemorrhage, nephrotic syndrome.

Introduction
Abdominal pain represents one of the most common clinical conditions. While in most cases the etiology is evident for the clinicians, there are some challenging cases in which an extensive work-up is mandatory for the diagnosis.

Patient, Methods and Results
A 65-year-old man was admitted to our department for diffuse abdominal pain, nausea, vomiting, diarrhea, painful joints and rectal tenesmus. The symptoms started five days ago, after a sustained physical effort. There was a history of significant peripheral artery disease with revascularization and stent implantation into the left femoral artery six months ago. The patient was on dual antiplatelet therapy (clopidogrel and aspirin).

At clinical examination, the patient looked ill and his temperature was normal. The abdomen was moderately distended and painful to palpation, without signs of peritoneal irritation. He reported a previous urticarial rash, followed by palpable purpura involving the lower extremities (Figure 1). The diarrheic stools evolved towards melena during hospitalization. Diuresis was maintained.

Emergency endoscopic examination of the upper gastrointestinal tract showed hiatal hernia, a few superficial gastric erosions, covered with small quantities of clots and fresh blood. Multiple areas of deep and superficial ulcerations, ranging from 3 to more than 20 mm in length, were disseminated from the second to the third portion of the duodenum (Figure 2).

Colonoscopy showed some sigmoid uncomplicated diverticula without signs of inflammation. Terminal ileum intubation showed redness, edema, swelling, petechiae and ecchymosis, irregular erosions and ulcers (Figure 3). Endoscopic biopsy specimens showed non-specific inflammation (Figure 4).

Computed tomography showed moderate ascites, small quantity of pleural effusion, mesenteric lymphadenopathy and small bowel wall thickening at the level of the second duodenum, proximal jejunum and segments of ileum with “target sign” features (Figure 5).

Laboratory work-up showed leukocytosis with neutrophilia, moderate anemia, transient thrombocytosis, elevation of serum aminotransferases, elevated triglycerides, hypoalbuminemia, normal serum cholesterol and plasma creatinine concentration. The erythrocyte sedimentation rate was at 25 mm at one hour and the C-reactive protein at 1 mg/dL. Complement levels, fibrinogen level, cryoglobulins, antinuclear antibodies,
rheumatoid factor, antineutrophil cytoplasmic antibodies (c-ANCA and p-ANCA), immune complexes and serum immunoglobulins (IgG, IgA and IgM) were in the normal ranges.

Figure 1 – (A and B) Skin lesions on the lower extremities.

Figure 2 – (A and B) Endoscopic findings at the level of the second portion of the duodenum.

Figure 3 – (A and B) Endoscopic findings at the level of terminal ileum.

Figure 4 – (A and B) Histopathology: biopsy specimens showing small bowel with ulcerations of the mucosa and submucosa, dilated vessels with stasis, fibrin thrombi in small vessels and fibrinoleucocitar material in submucosa (HE stain, ob. ×4).
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The standard screening for B and C viral hepatitis was negative. Procalcitonin test was negative. The urine analysis revealed microscopic hematuria with nephrotic range proteinuria, red cells and cellular casts. The urine culture was negative.

Therapy with corticosteroids and pulses of cyclophosphamide was started with significant clinical improvement.

Three weeks after the first admission, the patient has sudden onset of a severe abdominal pain presenting as acute peritonitis due to an intestinal perforation and acute mesenteric ischemia of the small bowel. The damaged segment of small bowel was resected. No other lesions were noted by the surgeon. After six months, the patient remained in good clinical condition, with significantly improved renal function.

The clinical picture and laboratory work-up pointed towards the diagnosis of Henoch–Schönlein purpura with acute mesenteric ischemia and perforation of the small bowel.

**Discussion**

Henoch–Schönlein purpura (HSP) is one of the most frequent vasculitides in general population, mainly in pediatric population. The cardinal clinical manifestations consist in palpable purpura, joint pain and arthritis, abdominal pain and renal involvement. Histopathological features consist in leukocytoclastic small-vessel vasculitis with IgA deposits [1].

However, there are data suggesting that HSP is not so rare in adults or in the elderly [2], in which the disease has a more severe clinical presentation and a worse prognosis [3]. Schaier M et al. showed that HSP renal disease is more severe in patients over 60 years [4]. Hung SP et al. also reported a poor renal prognosis in adults with HSP, aged over 20 years, male sex, bloody stools and the reoccurrence and persistence of the purpuric lesions being the predictors for renal involvement [5].

The digestive manifestations of HSP in adults and elderly were already reported. However, the diagnostic and the therapeutical measures in these patients are still debated. Gastrointestinal bleedings are not very rare in adult patients with HSP. For instance, Trouillier S et al. reported a 39% prevalence of gastrointestinal bleeding in patients between 16 and 80 years [6]. Although data are conflicting, the occurrence of melena may have an unfavorable prognostic impact in patients with HSP [7]. As there are reports proving the value of the endoscopic evaluation of digestive tract in patients with HSP [8, 9], we consider that complete exploration of the digestive tract (upper digestive endoscopy, colonoscopy and computed tomography) is mandatory in patients with HSP, especially in those with digestive bleeding. Moreover, the differentiation between atherosclerotic (history of peripheral atherosclerotic disease with revascularisation) and vasculitis mesenteric infarct could be also challenging.

In our patient, the therapy with glucocorticoids and cyclophosphamide was initiated taking into account the severity of the renal disease.

**Conclusions**

In elderly with gastrointestinal symptoms and bleeding, rare etiologies as HSP must be always kept in mind, especially in those patients with associated systemic symptoms (purpura, renal disease). Complete exploration of the digestive tract is mandatory for a correct diagnosis.

**References**


Corresponding author
Mariana Jinga, Senior Lecturer, MD, PhD, Internal Medicine and Gastroenterology Clinic, “Dr. Carol Davila” Central University Emergency Military Hospital, 88 Mircea Vulcănescu Street, Sector 1, 010825 Bucharest, Romania; Phone +40722–232 530, Fax +4031–815 29 49, e-mail: mariana_jinga@yahoo.com

Received: May 5th, 2012
Accepted: September 25th, 2012