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Case report

Very late-onset of inflammatory bowel disease. A case report

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Summary:

Introduction

Inflammatory bowel disease (IBD) in most cases is classified into Crohn's disease (CD) or ulcerative colitis (UC). It appears in 25-35 years of age and the second peak is after fifties. It is very rare to recognize it in the elderly.

Case presentation

We present a case of a 79-year-old female patient who was admitted to the Chair and Department of Gastroenterology with Endoscopic Unit at the Medical University of Lublin in December 2018 with an acute lower gastrointestinal hemorrhage and dyselectrolytemia. Additionally, she suffered from atrial fibrillation. She has been treated with an anticoagulant therapy and has been receiving dabigatran for many years. After 16 days of diagnostic research and intensive treatment the patient was discharged home with no previous symptoms. After the next 12 days at home our patient returned to the hospital with recurrent gastrointestinal bleeding, abdominal pain and after fainting episode. Digital rectal exam was positive and laboratory test showed anemia again. Colonoscopic findings on admission showed proximally to the splenic flexure blood signs, on Bauhin's valve a flat ulcer. The histopathological report confirmed the inflammatory bowel disease. After diagnosis of IBD, an effective treatment with mesalazine and prednisone was started.

Conclusions

Despite the newest clinical trials are more and more common in Crohn's disease or ulcerative colitis, the elderly patients are mostly excluded from them because of the other accompanying diseases and their burdensome side effects. Choosing the right therapy becomes the main problem in these patients after setting a proper diagnosis which can take years and many unnecessary hospitalizations.

Key words: inflammatory bowel disease (IBD); gastrointestinal bleeding; ulcerative colitis (UC); Crohn's disease (CD); elderly patients.

Introduction

Inflammatory bowel disease (IBD) is characterized by chronic inflammation of the gastrointestinal tract, not only intestine. Crohn's disease (CD) and ulcerative colitis (UC) . It is thought that recently mostly Crohn's disease's incidence is growing. For many years they were supposed to be a disease of young people. Thus, they can appear in every age. However, the most common age of setting the diagnosis is 25-35 years of age and the second peak is after fifties. Our case report shows that gastrointestinal bleeding which is one of the main symptoms of IBD may be misdiagnosed with other common causes of bleeding, especially in elderly. It is significant to take into account that Crohn's disease or ulcerative colitis can be manifested as late-onset and should be never omitted in differential diagnosis. Nowadays, almost 20% of IBD patients are known as a late-onset (after sixties) [1,2]

Case presentation

A 79-year-old female was admitted to the hospital with an acute lower gastrointestinal hemorrhage and electrolyte disturbances starting the day before the visit. She didn't report any abdominal pain. Additionally, the patient was treated for arterial hypertension and she was taking metoprolol, amiloride, and hydrochlorothiazide. Thus, she suffered from atrial fibrillation. She has been treated with an anticoagulant therapy and has been receiving dabigatran for many years. She was also treated with selegiline due to Parkinson's disease and fenoterol in the course of asthma. However, she hasn't been to the hospital since decades. The patient was a non-alcoholic and non-smoker. In her family there was no cancer history or

other chronic diseases' appearance, including any gastrointestinal illness. She was living with her daughter in good social conditions.

At first, our patient arrived at the Emergency Unit with the symptoms mentioned above. After getting necessary laboratory tests, medical procedures, and specialist consultations the patient was referred to the Department of Gastroenterology in order to undergo the necessary diagnostic procedures, such as endoscopic examinations. In the Emergency Unit she had had performed a chest x-ray which showed that there was an increased parenchymal pulmonary structure and an abdominal x-ray which showed no fluid levels. An abdominal ultrasound revealed liver and spleen which were not enlarged, with no focus lesions, the gallbladder with no gallstones, the hyperechogenic pancreas and normal-wide common bile duct. Physical examination revealed per rectum red stool. No other visible symptoms were noted than the active bleeding.

The laboratory test results showed leucopenia with white blood cell (WBC) count $19.3x10^6/\mu l$, normocytic anemia with hemoglobin 9.3g/dL, red blood cell (RBC) count $3.43x10^6/\mu l$, mean corpuscular volume (MCV) count 81.6 fL and platelets $249x10^3/\mu l$. The international normalized ratio (INR) was elongated 1.45, probably because of anticoagulant treatment. The sodium level was very low 111 mmol/L, the potassium level 3.2 mol/L, the calcium level 8.4 mg/dl. The renal function was proper. The markers of heart failure were not elevated. The inflammatory markers such as serum C-reactive protein (CRP) was 49.6 mg/L.

Esophagogastroduodenoscopy performed in the first day of hospitalization found a flat ulcer about 15 mm diameter on the upper duodenal knee, on the next duodenal fold a 6 mm ulcer, on the anterior wall of duodenal bulb a 5 mm ulcer, erythema in pyloric antrum and in angular incisure, in inversion erosions comprising ¾ of esophageal wall in the lower part of esophagus (GERD LA-D). The tissue samples were taken to the histopathological examination.

During the visit in the hospital she suffered from fatigue. Meanwhile, the patient was consulted by a neurologist because of her low sodium level but basing on the neurological examination no neurological treatment was advised.

Five days later the sigmoidoscopy was also performed. However, the patient was not well prepared for the examination. It revealed many hemolyzed blood clots and fecal material. About ten days later the colonoscopy was performed. Too much fecal material was observed, in descending colon and caecum, to evaluate the colon properly. However, no active bleeding was noticed. Summing up, there was no recommendation to withdraw tissue samples to the histopathology report.

After 16 days of intensive anti-bleeding and electrolyte-leveled out treatment (PPI, tranexamic acid, compound electrolyte solution, KCl, MgSO4, NaCl, vitamin K1) the patient was discharged home with the recommendation that it bleeding appears again, she should visit the doctor immediately.

After 12 days at home our patient returned to the hospital with recurrent gastrointestinal bleeding, abdominal pain and after fainting episode. Digital rectal exam was positive and laboratory test showed anemia again. At the time of her transfer to our department, the laboratory test results detected: white blood cell (WBC) count 36,25/µl, hemoglobin (Hb) 9.6 g/dl and serum C-reactive protein (CRP) 29 mg/L. The stool was negative for *Clostridium difficile*.

Esophagogastroduodenoscopy found small white Candida raids in upper and medium part of esophagus and no ulcers which were seen in the previous examination. The stomach's mucosa was not changed. No gastrointestinal bleeding was found.

Colonoscopy findings showed proximally to the splenic flexure blood signs, on Bauhin's valve a flat ulcer – the samples to the histopathological examination were taken. Ileum's mucosa's membrane was changed inflammatory with blood and mucus. Distally to the splenic flexure nothing alarming was found. In the sigmoid colon there were seen the single diverticula.

The histopathological report confirmed colonoscopy findings. Biopsy appeared to be suggestive of inflammatory bowel disease, not classified as Crohn's disease or ulcerative colitis.

During the hospital visit, the patient received antihemorrhagic treatment (tranexamic acid, PPI, vitamin K1) and drugs which elevated the electrolytes level, such as potassium chloride and sodium chloride. She also received metronidazole due to the presence of diverticula, pain relief and diastolic medicaments. Dabigatran was exchanged into enoxaparin. After diagnosis of IBD, treatment with mesalamine and prednisone was started. At discharge, the patient was recommended to receive oral prednisone 30 mg/day for three weeks with reduction of dosage for 5 mg per one week and mesalamine 1500 mg two times daily. Thus, she was obligated to take probiotics and folic acid. Furthermore, she had to stop using dabigatran and exchange it with enoxaparin until the next cardiologist's appointment.

Discussion and conclusions

Our patient represents a group of patients with IBD recognized in the elderly. What is optimistic, it is the fact that researchers observed less need for surgery and less severe course of disease in patients with late-onset of Crohn's disease. [3] However, occurrence of this disease seems to be rare about eighth decade and it is very easy to omit it. Thus, the reason of our patient's hospitalization seemed to be obvious as we knew she had been treated with anticoagulant drugs. The gastrointestinal bleeding was thought to be a result of this treatment. Her age was a point which appeared to be across from recognition of IBD. Additionally, the first colonoscopy didn't show any intestinal changes. Nonetheless, we knew that the patient wasn't fully prepared for the examination and it required to be replicated. Late-onset of inflammatory bowel disease may be not as common as in the younger age but it must be always considered as a cause of gastrointestinal bleeding. Thanks to this diagnosis our patient can be treated from gastrointestinal bleeding successfully because we recognized its reason.

Furthermore, while observing patients it was showed that IBD in elderly is not as severe as in younger age. [4] As it comes to UC the prognosis is similar in old and young age. However, while concerning CD, the colonic involvement promotes disease's milder course. [5] Unfortunately, patients with late-onset are less tolerant to inflammation so the risk of death in severe forms of IBD is bigger at them. [2] We mustn't forget that the occurrence of inflammatory bowel disease increases the risk of colorectal cancer independently on age and these patients require screening since diagnosis because among the statistics almost 15% IBD patients will die from this type of cancer. [2,6] It isn't clearly recommended how often screening colonoscopy should be performed – it is individual. [6] Additionally, there is a different pathogenesis way of neoplasia in IBD patients. Almost 25% of late-onset IBD patients show localized neoplasia whereas these with early-onset are diagnosed mostly with widespread neoplasia. [7]

Choosing the therapy depends on many factors such as the severity of IBD, symptoms occurring at the moment, other diseases or patient's tolerance to the proposed treatment. Elderly patients require a particular attention in selection of medication due to the side effects. The immunomodulatory or biologic treatment is rarely advised in this age group. [8]

Elderly IBD patients who receive biological treatment appear to have an increased possibility of infection's development than young patients and patients treated by non-biological medicaments. [9]

Unfortunately, as many clinical trials can become a future therapeutic options in Crohn's disease or ulcerative colitis, the elderly patients are sentenced to existing therapies because they are mostly excluded from the newest data. [10]

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Declarations

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Availability of data and materials:

All data generated or analyzed during this study are available from the corresponding author on reasonable request.

Consent for publication:

The patient agreed to present her medical history verbally during her hospitalization. We submitted no information that could show her recognition. There are no photos attached. The patient had died in Feb. 2019 so her daughter signed the written consent for publication as her nearest relative (available from the corresponding author on reasonable request).

Competing interests:

The authors declare that they have no competing interests.

List of abbreviations:

inflammatory bowel disease (IBD)

ulcerative colitis (UC)

white blood cell (WBC)

red blood cell (RBC)

mean corpuscular volume (MCV)

the international normalized ratio (INR)

C-reactive protein (CRP)

hemoglobin (Hb)

pomp protein inhibitor (PPI)

GERD LA – the Los Angeles Classification of Gastroesophageal reflux disease