CLINICAL VIGNETTE

Crohn's Disease: A Late Presentation of A Common Disease

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Case Report

The patient is a 63-year-old male with hyperlipidemia and anxiety who presented with six months of nausea and weight loss. He reported no other GI symptoms. His prior physician reduced his dose of escitalopram several months before without change in symptoms. His symptoms have been worsening and the patient lost 30 pounds over the last several months.

Past Medical History includes kidney stones and gout. He had a normal colonoscopy in 2011. Current medications included only atorvastatin and he has no known drug allergies.

He does not smoke but drinks 2-3 alcoholic beverages per week. Family history is significant for breast cancer, stroke, coronary artery disease, and type-2 diabetes. He has two healthy children.

His vital signs included blood pressure of 148/86, pulse 56, normal temperature, height 5 feet 8-1/2 inches, and weight 205.6 pounds. His general physical examination was unremarkable.

Laboratory included a normal CBC, chemistries, ESR, thyroid function, transglutaminase IgA, and endomysial IgA. Stool testing for c-diff toxin was negative.

EGD and colonoscopy biopsies revealed histological evidence of ileitis.

General Discussion

Crohn's disease is an idiopathic multisystem autoimmune disease characterized by transmural inflammation of the gastrointestinal tract that can affect the oral cavity to the anus[1]. Most cases involve the small bowel, especially the ileum[1]. The incidence of Crohn's disease is reported between 10-150 per 100,000 patients[2]. Crohn's disease is less common in Latin America, Asia, and Africa, more common among Ashkenazi Jews and smokers, and more common at northern lattitudes[3]. The peak incidence of the disorder is in the 20's to 30's as well as 60's to 70's[4]. Men are more likely to present earlier in life while women are more likely to present later[4]. Patients are commonly misdiagnosed as having irritable bowel syndrome and diagnosis is often delayed[5]. Patients frequently have periods with active symptoms as well as symptoms-free periods[6,7]. First degree relatives are 5-10 times more likely to develop the disease[8,9].

Etiology and Pathophysiology

The etiology of Crohn's disease is not fully elucidated but genetic, immunologic, environmental, dietary, and psychosocial factors are involved[7,10]. Affected patients have genetic immunologic susceptibility which is triggered when the necessary environmental conditions exist[11]. Various genes have been implicated but no single genetic defect has been identified[12]. Smoking is a risk factor for Crohn's disease but is not a risk factor for ulcerative colitis[1]. A diet rich in saturated fat and high levels of psychosocial stress are other risk factors[12,13]. The pathophysiology of Crohn's disease involves chronic T-cell and cytokine activation resulting in a complex biochemical cascade resulting in granuloma formation, villous blunting, and crypt atrophy[11]. GI involvement involves transmural and segmental inflammation of the intestinal lining[7] As the disease progresses, the lumen can become involved with obstruction, bleeding, malabsorption, fistulas, or superinfections[7].

Clinical Features

The most common clinical features are abdomen pain and diarrhea, although a variety of other symptoms can occur1[4]. These include nausea, weight loss, fever, chills, bleeding, anxiety, depression, and fatigue[14]. Abdomen pain can vary in location and severity but is often relieved by defecation[15]. Mucous, blood, and pus may be noted in the stool particularly if the colon is involved[7]. Symptoms can be subtle, resulting in a delay in diagnosis[16]. Nausea and vomiting are the predominant symptoms when the disease affects the upper to middle small

intestine[7]. Patients with anal disease tend to have significant perianal discomfort and malodorous rectal discharge[7]. The development of fistulas portends a poor prognosis with a greater risk of urinary tract infections and abscesses[17]. The most common sites of inflammation are the ileo-cecal region followed by the colon, small bowel, rectum, stomach, and mouth[7]. The esophagus is not commonly affected[7].

Diagnosis and Testing

Differential diagnosis is broad and includes infections, ulcerative colitis, irritable bowel disease, ischemia, diverticulitis, gall bladder disease, carcinoid tumors, Celiac disease, and appendicitis[18]. A definitive diagnosis of Crohn's disease involves a combination of clinical, laboratory, radiologic, and histological testing[18]. Laboratory testing is often nonspecific but suggestive of an inflammatory condition while radiologic testing can be helpful to identify anatomic patterns such as fistulas[7]. Plain films can assess for obstruction or perforation[7]. CT and MRI enterography can assess the small bowel and are helpful to diagnose fistulas[19]. Definitive diagnosis of Crohn's disease requires biopsy via ileo-colonoscopy[5]. Upper endoscopy is often performed to rule out upper digestive disorders such as Helicobacter pylori disease[7]. Serologic tests are generally unreliable[7].

Treatment

The treatment for Crohn's disease focuses on achieving the best clinical and histological control of the disease while minimizing adverse side effects and complications from medications and surgeries[20]. Treatments for inflammatory bowel disease have improved with new therapies such as biologic anti-tumor factor agents[21]. Anti-inflammatory immunosuppressant agents remain the cornerstone of treatment for most patients[21]. Surgical resection of the affected area is often considered especially when strictures, abscesses, or malignancies are present[7]. Stem cell treatments hold promise and are somewhat effective in certain patients[22]. Patients with mild disease begin with less aggressive treatments and proceed to other treatments if necessary[16]. Sicker patients often start with more potent agents to gain quicker control of the disease process[16]. Treatment regimens are individualized and typically involve a combination of medical and surgical treatments over time[16]. Anti-inflammatory medications are usually the first-line medical management with biologic therapies such as anti TNF-α agents being used if needed[21]. Steroids are used for acute exacerbations but are not recommended chronically[21]. The biologic agents have shown great promise but carry significant risks that need to be carefully considered[23]. The management of diarrhea is critically important for these patients. Patients have complicated nutritional considerations and a consultation with a dietician can be important to ensure optimal nutritional balance[24].

Prognosis and Cancer Risk

The prognosis for these patients depends on many factors including the extent of the inflammatory disease process as well as extraintestinal complications[7]. Some patients do quite well while other patients have a much more difficult clinical course[7]. Recently there has been a trend towards more judicious use of CT imaging[7]. Colonoscopies are recommended for cancer surveillance although the specifics of such recommendations remain controversial[15].

Clinical Course and Follow-Up

The patient was initially treated with Mesalamine and a short course of steroids and his condition improved over a matter of weeks. His nausea resolved and his appetite returned.

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