

Appendix 1 (as supplied by the authors): Differential diagnosis for peripheral eosinophilia with associated gastrointestinal symptoms

Note: Many of the disease entities listed below are most commonly asymptomatic, or may only present with some of the listed clinical manifestations. While this table aims to cover the more common clinical features, it is not a fully comprehensive list

Disease	Clinical signs & symptoms
Infectious Etiologies – Parasites	
Helminths	
Strongyloidiasis	Serpiginous rash (larva currens), relapsing respiratory symptoms (migratory stage - Loeffler syndrome), abdominal pain, diarrhea and weight loss; can cause a hyperinfection syndrome if untreated, particularly in setting of immunosuppression
Toxocariasis (visceral larva migrans)	Fever, anorexia, malaise, hepatitis, pneumonitis, pruritic urticarial skin lesions
Trichinellosis	Diarrhea, abdominal pain, vomiting, myalgias, muscle weakness
Anisakiasis	Acute epigastric pain and distention, vomiting, diarrhea; in severe cases, allergic reaction (bronchospasm, angioedema) or intestinal obstruction
Ascariasis	Respiratory symptoms (migratory stage - Loeffler syndrome) including dry cough, dyspnea, blood-tinged sputum; occasionally intestinal involvement causing nausea, vomiting, diarrhea and rarely intestinal obstruction
Dog/Cat Hookworm (Ancylostoma)	Serpiginous pruritic rash at parasite penetration site
Flukes (Liver/Intestinal)	Often asymptomatic, abdominal pain, fever, protein malabsorption occasionally leading to anasarca.
Protozoa	
Cryptosporidiosis	Nausea, malaise, crampy abdominal pain, fever, watery stool; in immunosuppressed patients, can cause cholangitis, hepatitis, pancreatitis and biliary tract involvement
Giardiasis	Diarrhea, malaise, steatorrhea, abdominal pain, weight loss; less commonly fever, vomiting, urticaria
Non-Infectious Etiologies	
Celiac disease	Abdominal pain, steatorrhea, flatulence, weight loss
Eosinophilic Esophagitis	Dysphagia, odynophagia, food impaction, chest pain, epigastric pain
Primary Eosinophilic Gastroenteritis	Nausea, vomiting, diarrhea, dyspepsia, weight loss; rarely, obstructive type symptoms (eg. pyloric stenosis, intestinal obstruction) or ascites

Idiopathic Hypereosinophilic Syndrome	Multi-organ damage; skin rashes, shortness of breath, chest pain, memory loss, ataxia, weight loss, abdominal pain, diarrhea
Hepatobiliary, colon or gastric cancer	Abdominal pain, rectal bleeding, change in stool calibre, nausea/vomiting, dysphagia, ascites
Inflammatory Bowel Disease	Abdominal pain, diarrhea, bloody stool, fistulas, various extra-intestinal manifestations (eg. arthralgias, uveitis, erythema nodosum, pyoderma gangrenosum, primary sclerosing cholangitis)
Polyarteritis Nodosa	Fatigue, weight loss, weakness, fever, arthralgias, skin lesions, hypertension, abdominal pain, neurologic dysfunction, renal insufficiency
Eosinophilic Granulomatosis with Polyangiitis	Pulmonary symptoms most common, with asthma as the cardinal feature (>90% of patients). Fatigue, weight loss, fever, arthralgias, cough, dyspnea, rhinosinusitis, urinary abnormalities (eg. hematuria, proteinuria) with or without renal dysfunction, neurologic dysfunction, purpura
Carcinoid (neuroendocrine) tumour	Carcinoid syndrome, which may involve facial flushing, wheezing, diarrhea, abdominal cramping and/or peripheral edema; advanced small bowel disease may present with obstruction or ascites
Hematologic malignancy (lymphoma, myoproliferative neoplasm)	Fatigue, weakness, weight loss, night sweats, enlarged/tender lymph nodes, fever/chills, easy bleeding and bruising
Drug-induced eosinophilia	Ranges from asymptomatic to life threatening – rarely, DRESS (drug reaction with eosinophilia and systemic symptoms) including triad of skin eruption, fever, and organ involvement (kidneys, heart, liver, lung)
Primary Biliary Cirrhosis	Fatigue, pruritus, right upper quadrant pain, anorexia; hepatosplenomegaly, edema, jaundice, ascites, xanthomas in advanced disease
Primary Sclerosing Cholangitis	Fatigue, pruritus, right upper quadrant pain, fever, chills, night sweats, jaundice, ascites in advanced disease; diarrhea in those with inflammatory bowel disease
Eosinophilic Cholangitis	Right upper quadrant pain, jaundice, pruritus, pale stool, dark urine, anorexia, nausea
Eosinophilic Cholecystitis (Hepatic Transplant Rejection)	Fever, malaise, abdominal pain, hepatosplenomegaly; rarely, increasing ascites

References

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