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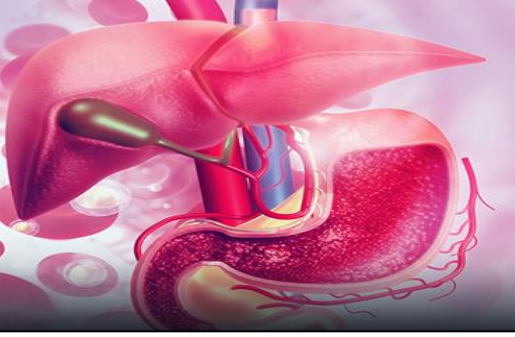

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Dear Doctor,

Greetings from Micro Labs limited. We are happy to bring you "ENTERON" which contains latest and interesting news in the field of Gastroenterology.

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1. **Discrete terminal ileal ulcers in patients diagnosed with ulcerative colitis: clinical significance and natural course**
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Should you require any specific article or medical information, please feel free to contact us at medicalservices@microlabs.in

Looking forward to your valuable feedback

Best Regards,

Medical Team, Micro Labs Ltd

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Discrete terminal ileal ulcers in patients diagnosed with ulcerative colitis: clinical significance and natural course

Introduction:

Discrete terminal ileal ulcers are detected occasionally in asymptomatic healthy individuals regardless of medication history including treatment with aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs). Most lesions detected in the terminal ileum resolve completely spontaneously without treatment, while a few terminal ileal ulcers are associated with significant diseases such as intestinal tuberculosis or Crohn's disease. Most asymptomatic individuals with terminal ileal ulcers show a benign natural course, which does not require empirical therapy. Patients treated for colitis (UC) also carry infrequent aphthous or small ulcerations in terminal ileum during ileocolonoscopy, which differ from backwash ileitis that shows inflammatory reaction in distal ileum following reflux of colonic contents, induced by malfunction of ileocecal (IC) valve. These cases of UC frequently manifest disease extension involving the entire colon including cecum and IC valve related to severe disease activity. However, terminal ileal ulcers detected in cases not involving cecum or ascending colon can be explained via another mechanism besides backwash ileitis. In addition, clinical significance and natural course of discrete terminal ileal ulcers in patients with UC were not fully evaluated. This study aimed to evaluate the frequency of discrete terminal ileal ulcers in patients with UC and determine the clinical significance and the natural course of UC in patients carrying terminal ileal ulcers compared with those who do not.

Methods: We retrospectively reviewed 397 patients with UC via successful terminal ileal intubation during colonoscopy. We compared the clinical characteristics of patients manifesting terminal ileal ulcers with those who did not. The natural course of terminal ileal lesions was also investigated during the follow-up periods.

Results: Forty-one patients (10.3%) showed terminal ileal ulcers without evidence of inflammation in the right colon. The patients with and without terminal ileal ulcers were not different in terms of baseline characteristics, disease activity and extent at the time of the UC diagnosis, proximal extension, Mayo endoscopic score at the last endoscopic examination, medication history, UC-related hospitalization, and relapse during follow-up periods.

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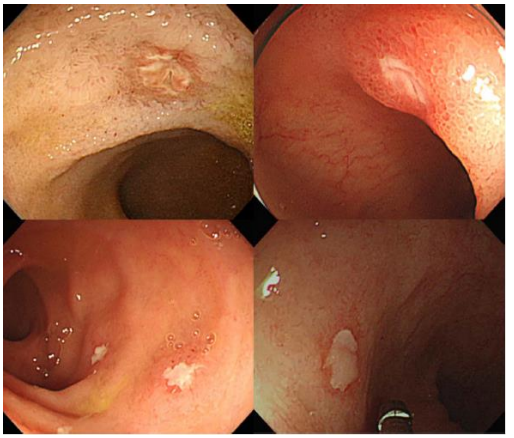
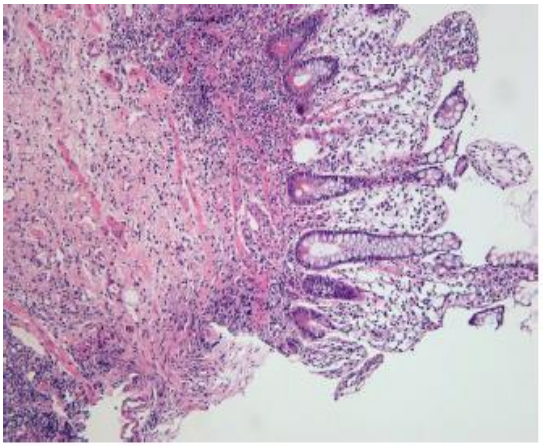
Colonoscopic images of terminal ileal ulcers in patients with ulcerative colitis



Histopathological image of discrete terminal ileal ulcer in patients with ulcerative colitis



Of the 30 patients who underwent follow-up colonoscopy in patients with terminal ileal ulcers, 23 (76.7%) showed resolution of terminal ileal ulcer. In addition, patients with remaining terminal ileal ulcers did not differ in disease activity and biopsy results compared with those with resolving terminal ileal ulcers.

Conclusions: Discrete TI ulcers are more common in patients with UC, compared with the healthy cohort. No significant clinical impact on disease extension and severity is found.

Source: Lim et al. Discrete terminal ileal ulcers in patients diagnosed with ulcerative colitis: Clinical significance and natural course BMC Gastroenterol (2021) 21:285

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Mucormycosis causing massive lower gastrointestinal bleeding: a case report

Introduction:

Lower gastrointestinal bleeding (LGIB) presenting as hematochezia is very common in the hospital setting. Most cases of LGIB stop spontaneously, but acute severe bleeding are often life-threatening, especially in patients with comorbidities. To improve diagnostic and therapeutic yields, early colonoscopy is suggested for patients with acute LGIB. The most common etiologies of LGIB include diverticulosis, angiodysplasia, colorectal neoplasms, hemorrhoids, and rectal ulcer. Other causes like inflammatory bowel disease and proctitis also are important differential diagnoses. In immunocompromised patients, opportunistic infections of the GI tract resulting in massive LGIB have been reported in previous literature. These include viral infections such as cytomegalovirus colitis, bacterial infections such as tuberculosis, and fungal infections such as aspergillosis and mucormycosis. Among these infections, mucormycosis causing LGIB has been the least reported. Presentations of intestinal mucormycosis reported in literature are non-specific, starting from afebrile abdominal pain to severe intestinal perforation. In the few reported cases of mucormycosis presenting as severe LGIB, most patients died despite treatment. Delayed diagnosis was often identified because the fundamental reason for mortality. We described a case of GI mucormycosis presenting as massive hematochezia in an immunocompromised patient with diabetic ketoacidosis (DKA). Prompt diagnosis with colonoscopy and antifungal treatment resulted in satisfactory outcome.

Case presentation:

A young man with poorly controlled Type I diabetes mellitus and chronic alcohol abuse presented with acute altered mental status. During his hospitalization for treatment of diabetic ketoacidosis, acute renal failure, and sepsis, he suddenly developed massive hematochezia of 1500 mL. Colonoscopy was performed and a deep ulcer covered with mucus with peripheral elevation was noted at the transverse colon.

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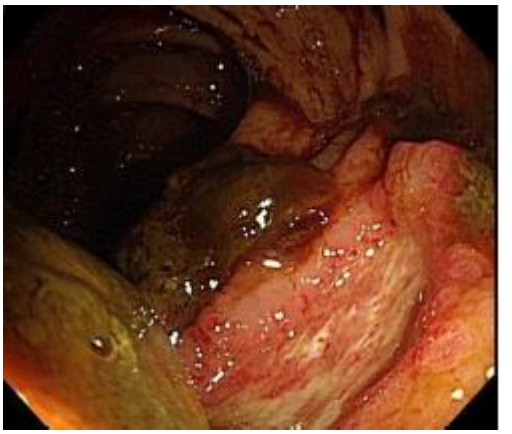
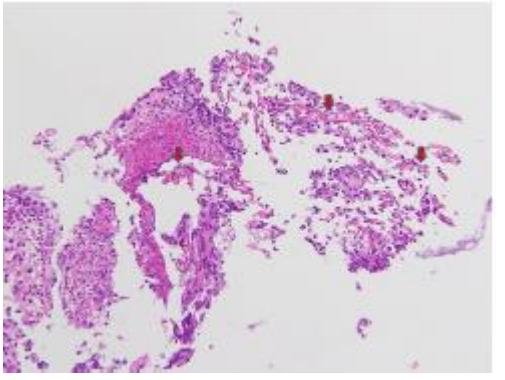
A deep ulcer covered with mucus with peripheral elevation was noted at the transverse colon



Nonpigmented, wide (5–20 μm in diameter), thin-walled, ribbon-like hyphae with few septations and right-angle branching suggestive of mucormycosis was demonstrated by PAS stain



Biopsy of the ulcer later revealed nonpigmented, wide (5–20 μm in diameter), thin-walled, ribbon-like hyphae with few septations and right-angle branching suggestive of mucormycosis demonstrated by Periodic acid–Schiff stain. He received 2 months of antifungal treatment. Follow up colonoscopy post-treatment was normal with no ulcer visualized.

Discussion

One rare cause of lower GI bleeding is GI mucormycosis. Gastrointestinal mucormoycosis is one of the rarest, making up only around 7% of all cases. Mortality of GI mucormyocosis has been reported to be as high as 85%. Patients often present with nonspecific symptoms such as abdominal pain, GI bleeding, change in bowel habits, and fever. Interestingly, the majority of patients present with abdominal pain in the absence of fever. Nonspecific clinical presentation makes the diagnosis difficult and often delayed, and therefore contributes to the high mortality rate. Definite diagnosis of mucormycosis is made by histopathological evidence of fungal invasion of tissue. In the case of GI mucormycosis, undergoing invasive endoscopy or even surgery is usually inevitable for diagnosis. A dark appearing ulcer with sharp demarcated edges apparently related to necrosis and thrombosis in adjacent vessels is representative of a typical GI lesion. However, many patients with severe acute LGIB are unable to tolerate rapid colon preparation for diagnostic colonoscopy, making localization of lesions challenging due to poor visualization. Therefore, in immunocompromised patients such as those with DKA, pharmacological immunosuppression because of organ transplantation, or diseases requiring immunosuppressive medications, it is important to consider the possibility of GI mucormycosis. In the absence of other immediately identifiable etiologies, empiric antifungal treatment should be initiated without delay for clinically suspicious cases of acute severe LGIB in patients who are unable to undergo timely definite diagnosis via colonoscopy. It is advised that treatment of mucormycosis include urgent surgical resection of infected area whenever feasible parallel to systemic antifungal therapy to prevent disease dissemination. Liposomal amphotericin B is the recommended first line treatment for mucormycosis. Posaconazole has generally been recommended as maintenance and salvage therapy.

Conclusion

Mucormycosis is a life-threatening fungal infection caused by Mucorales, primarily affecting the immunocompromised hosts. A rare clinical presentation of mucormycosis of the GI tract is hematochezia. Early diagnosis and treatment of mucormycosis infection is critical but can be challenging, especially in the setting of massive hematochezia where adequate bowel preparation for diagnostic colonoscopy cannot be achieved. Therefore, colonic opportunistic infections such as mucormycosis should be a differential diagnosis for massive

GI bleeding in immunocompromised patients. In cases with high clinical suspicion, prompt empiric treatment of possible fungal infection is critical.

Source: Chiang et al. Mucormycosis causing massive lower gastrointestinal bleeding: a case report. BMC Gastroenterol (2021) 21:272

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Association of Oral Corticosteroid Bursts With Severe Adverse Events in Children

Introduction:

Oral corticosteroids are the bedrock of treatment for several inflammatory diseases, as recommended by international guidelines. Use of oral corticosteroids is associated with subsequent adverse events, including Cushingoid features, gastrointestinal (GI) bleeding, infections, glaucoma, hyperglycemia, cardiovascular diseases, and osteoporosis. Clinicians therefore caution against long-term use of oral corticosteroids unless the potential benefits outweigh the potential risks. Scant data are available about the potential harms of corticosteroid bursts, which are defined as courses of oral corticosteroids for 14 or fewer days. Nowadays, use of corticosteroid bursts are considered harmless, an assumption supported by years of clinical data linking exposure duration with toxic effects. Corticosteroid bursts are typically prescribed for treating non–life-threatening conditions, such as upper respiratory tract infections, bronchitis, rashes, and low-back pain. A population-based showed increased rates of adverse events, including sepsis, venous thromboembolism, and fracture, among adults who were treated with oral corticosteroids for fewer than 30 days. A recent longitudinal analysis of 15 million adults in Taiwan by Yao and colleagues is the first, to report potential harms of corticosteroid bursts by using a self-controlled case series design. Study demonstrated increased risks of GI bleeding, sepsis, and heart failure in a general adult population receiving corticosteroid bursts. However, data regarding the potential harms of short-term oral corticosteroids in children remain limited.

Objective:

To quantify the associations of corticosteroid bursts with severe adverse events, including gastrointestinal (GI) bleeding, sepsis, pneumonia, and glaucoma, in children.

Study design:

This study used data derived from the National Health Insurance Research Database, on children younger than 18 years of age and used a self-controlled case series design.

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Exposure: Oral corticosteroid bursts (defined as oral corticosteroid use for_14 days).

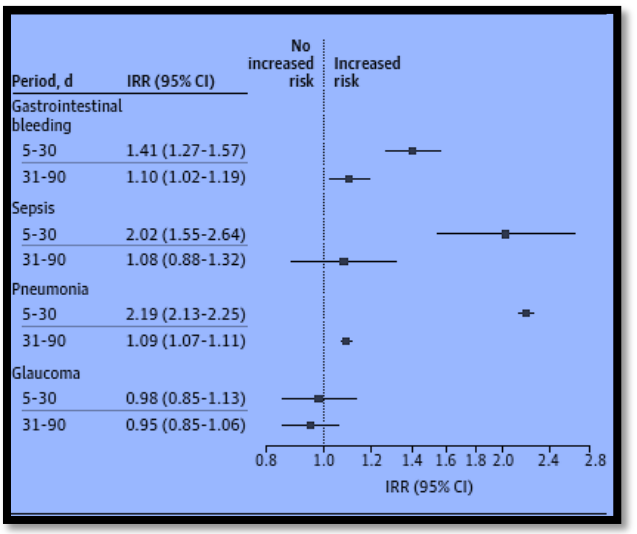
Outcomes:

Incidence rates were calculated of 4 severe adverse events (GI bleeding, sepsis, pneumonia, and glaucoma) in children who did or did not receive corticosteroid bursts. Conditional fixed-effect Poisson regression was used to estimate incidence rate ratios (IRRs) of severe adverse events within 5 to 30 days and 31 to 90 days after initiation of corticosteroid bursts.

Results:

Among 4542623 children, 23% were prescribed a single corticosteroid burst. The most common indications were acute respiratory tract infections and allergic diseases. The incidence rate differences per 1000 person-years between children administered a single corticosteroid burst and those not prescribed corticosteroids were 0.60 for GI bleeding, 0.03 for sepsis, 9.35 for pneumonia, and 0.01 for glaucoma. The IRRs within 5 to 30 days after initiating corticosteroid bursts were 1.41 for GI bleeding, 2.02 for sepsis, 2.19 for pneumonia, and 0.98 for glaucoma; the IRRs within the subsequent 31 to 90 days were 1.10 for GI bleeding, 1.08 for sepsis, 1.09 for pneumonia, and 0.95 for glaucoma.

Association Between Exposure to Corticosteroid Bursts and Gastrointestinal Bleeding, Sepsis, Pneumonia, and Glaucoma in Children



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Conclusion

This study suggests that corticosteroid bursts, which are commonly prescribed for children with respiratory and allergic conditions, are associated with a 1.4- to 2.2-fold increased risk of GI bleeding, sepsis, and pneumonia within the first month after initiation of corticosteroid therapy that is attenuated during the subsequent 31 to 90 days.

Key Points

Question

Are there potential harms associated with oral corticosteroid bursts (defined as the use of oral corticosteroids for 14 or fewer days) in children?

Findings

In this nationwide population-based study of 1 064 587 children who received a single corticosteroid burst, a burst was associated with 1.4- to 2.2-fold increased risk of gastrointestinal bleeding, sepsis, and pneumonia within the first month after corticosteroid initiation.

Meaning

This study suggests that clinicians should be aware of potentially severe adverse events associated with corticosteroid bursts in children.

Source: Yao T C, et al. Association of Oral Corticosteroid Bursts With Severe Adverse Events in Children JAMA Pediatr. 2021;175(7):723-729.

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