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The Care Continues...

GEXPRESS

From Editor's Desk

Dear Doctor,

An integral role of the doctor is to take utmost care of the health of the patients. This is possible by the evidence based clinical practice. This calls for a need of continuous awareness with regards to new updates in the illness as well as complications, prognosis and potential side effects associated with the therapy. “CADIGEN” would allow doctors to get in touch with new updates in the field and acquire higher levels of knowledge about patients’ health concerns, at their own pace.

Ideally, to keep one-self updates would be possible by continuous personal search of any advancement of relevant areas. However sometimes a timely or exhaustive search of relevant information isn’t practical or possible. Moreover, even in those cases where a personal search is possible, it is not common for doctors to get sufficient time to keep themselves aware of all advancements of their relevant areas of interest.

It is with great pleasure that we bring inaugural issue of newsletter CADIGEN for our esteemed gastroenterologists & gastro-surgeons which covers therapy updates, drug updates, drug/device of the month, upcoming conferences, for our revered doctors.

We eagerly look forward to your valuable suggestions and comments that would make the forthcoming issues more interesting and knowledgeable to our readers.

Happy reading!!!!

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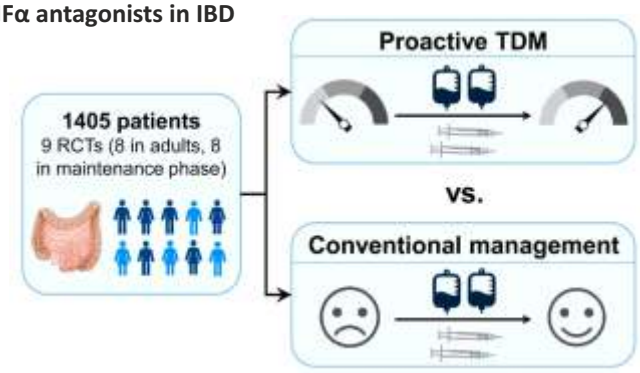
News

In patients with IBD using TNF antagonists, routine proactive Therapeutic Drug Monitoring did not provide therapeutic benefit.

Proactive TDM vs. conventional management with TNFα antagonists in IBD



PRIMARY OUTCOME (AT 1 YEAR)	EVIDENCE
CLINICAL REMISSION	NO BENEFIT RR, 0.96; [0.81-1.13]

SECONDARY OUTCOMES	EVIDENCE
DOSE ESCALATION	HIGHER WITH TDM RR, 1.56 [1.25-1.94]
ANTI-DRUG ANTIBODIES	NO DIFFERENCE RR, 0.84 [0.58-1.22]

Proactive therapeutic drug monitoring (TDM) has been proposed to improve outcomes in patients with inflammatory bowel disease (IBD) treated with tumor necrosis factor (TNF)α antagonists. We conducted a systematic review and meta-analysis of randomized controlled trials (RCTs) comparing proactive TDM with conventional management in patients with IBD.

There was no significant difference in the risk of failing to maintain clinical remission in patients who underwent proactive TDM vs. conventional management with moderate heterogeneity (Grading of Recommendations, Assessment, Development and Evaluations; low certainty evidence), with no differences in patients with Crohn's disease and ulcerative colitis. This was based on a meta-analysis of 9 RCTs (8 RCTs in adults, and focusing on the maintenance phase). This connection was unaffected by factors such as disease duration, concurrent immunomodulators, disease activity at baseline, or therapy optimization prior to randomization. Risk of acquiring antidrug antibodies or major adverse events did not differ. More patients in the proactive TDM arm underwent dosage escalation.

In RCTs successfully completed, routine proactive TDM to target biologic concentration to particular thresholds, regardless of disease activity, did not provide a therapeutic benefit in patients with IBD treated with TNF antagonists.

Source: Nguyen NH, Solitano V, Vuyyuru SK, MacDonald JK, Syversen SW, Jørgensen KK, Crowley E, Ma C, Jairath V, Singh S. Proactive Therapeutic Drug Monitoring vs. Conventional Management for Inflammatory Bowel Diseases: A Systematic Review and Meta-analysis. Gastroenterology. 2022 Jun 24.

Drug update

Risankizumab for moderate to severe Crohn disease

The availability of different treatments for moderate to severe Crohn's disease (CD) is expanding. Risankizumab (an anti-interleukin 23 antibody) produced higher rates of clinical remission at 12 weeks in two induction trials testing it against placebo in people with moderate to severe CD. In a maintenance trial, risankizumab 180 or 360 mg exceeded placebo in terms of maintained remission rates after 52 weeks.

Risankizumab, a monoclonal antibody approved to treat plaque psoriasis and psoriatic arthritis, selectively binds to the IL-23 p19 subunit and inhibits its interaction with the IL-23R complex. Intravenous induction therapy with risankizumab was well tolerated and effective at doses of 200 mg and 600 mg in patients who were naive to, or previously treated with, tumour necrosis factor (TNF) antagonist therapy or vedolizumab in a randomised, double-masked, phase 2 study in patients with moderately to severely active Crohn's disease.

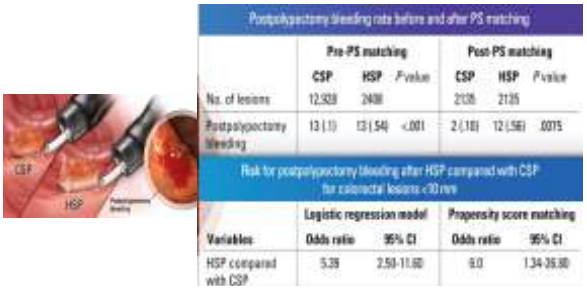
Inhibiting interleukin (IL)-23 is a viable therapeutic approach to treat of Crohn's disease. IL-23 has a distinctive p19 subunit and a p40 subunit that is also present in IL-12. The effector cytokines IL-22 and IL-23 control intestinal inflammation. Patients with Crohn's disease have elevated IL-23 levels in their mucosa, and genome-wide association studies have revealed a high relationship between inflammatory bowel illnesses and polymorphisms of the IL-23 or IL-23 receptor (IL-23R) gene. Both as a secondary biomarker of Crohn's disease activity and as a pharmacodynamic biomarker of IL-23 activity, IL-22 may be clinically beneficial.

Source: D'Haens G, Panaccione R, Baert F, Bossuyt P, Colombel JF, Danese S, Dubinsky M, Feagan BG, Hisamatsu T, Lim A, Lindsay JO. Risankizumab as induction therapy for Crohn's disease: results from the phase 3 ADVANCE and MOTIVATE induction trials. The Lancet. 2022 May 28;399(10340):2015-30.

Medical humour

Therapy update

Colon polypectomy technique and risk of bleeding: For colorectal lesions <10 mm in diameter, the risk of PPB after Cold snare polypectomy is significantly lower than that after hot snare polypectomy



Endoscopic resection of colorectal polyps reduces the risk of colorectal cancer mortality. Colon polyps can be safely removed with the cold snare polypectomy (CSP), which has a low incidence of postpolypectomy haemorrhage (PPB). Due to their small sample sizes, previous studies were unable to show differences in PPB rates between CSP and hot snare polypectomy (HSP). In this study, PPB rates after CSP and HSP were examined.

An analysis of colorectal lesions with a diameter of less than 10 millimetres that were surgically removed endoscopically on total of 5371 patients. Depending on the endoscopist's preference, resections were carried out using either CSP or HSP. To match patient age, lesion size, macroscopic features, location of the lesions, clipping after resection, and usage of antithrombotic medications, Propensity Score (PS) matching was done. The adverse event (PPB) rates for the CSP and HSP groups were compared. Analysis revealed that the overall prevalence of PPB after HSP was higher than that after CSP. Postpolypectomy bleeding (PPB) was defined as the presence of marked bloody stool or the need for some degree of post-treatment hemostasis within 14 days of the procedure.

The risk of PPB following CSP is much lower than that following HSP for colorectal lesions under 10 mm in diameter. When compared to HSP, CSP for lesions under 10 mm could be safely conducted.

Source: Takamaru H, Saito Y, Hammoud GM, Mizuguchi Y, Cho H, Sekiguchi M, Yamada M, Sakamoto T, Matsuda T. Comparison of postpolypectomy bleeding events between cold snare polypectomy and hot snare polypectomy for small colorectal lesions: a large-scale propensity score–matched analysis. Gastrointestinal Endoscopy. 2022 May 1;95(5):982-9.

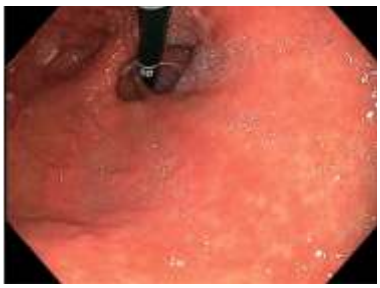
Uncommon clinical presentation

Gastric Pseudomelanosis: An Uncommon Finding

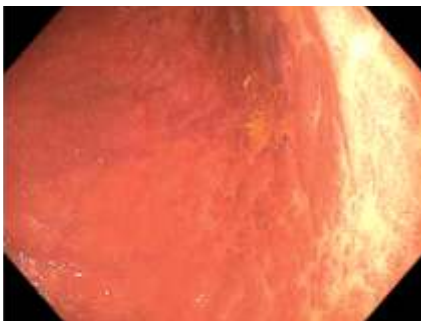
Pigment deposition inside the subepithelial macrophages within the stomach wall is a characteristic feature of the benign condition known as gastric pseudomelanosis. The condition very seldom appears, with pseudomelanosis more frequently occurring in the duodenal mucosa. Few cases have reported pseudomelanosis within the gastric mucosa.

An 86-year-old female was admitted to the hospital for further assessment of daily vomiting episodes over a 2-week period. Her medical history was significant for gastroesophageal reflux, stage IV chronic kidney disease, stage IV chronic obstructive pulmonary disease, a prior cerebrovascular accident, hypertension treated with verapamil, hyperlipidemia, and iron deficiency anaemia. The patient's haemoglobin at admission was 7.2 g/dL, raising worries about increasing anaemia. The patient had upper endoscopy with video capsule insertion after receiving a blood transfusion of one unit of packed red blood cells due to a suspected gastrointestinal haemorrhage.

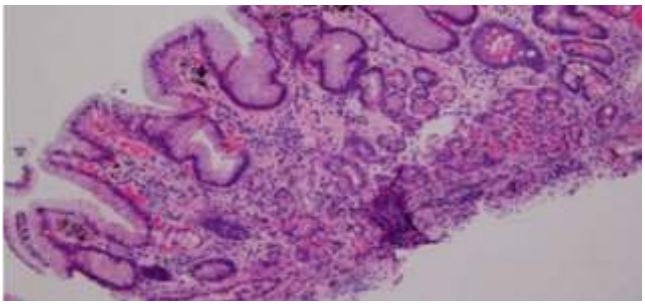
Patient's updated endoscopic evaluation revealed discoloured and friable mucosa in the gastric fundus and gastric body. Video capsule study revealed pigmented duodenal mucosa and no active bleed.



Gastric body demonstrating speckled dark mucosal pigmentation (endoscopy image)



Stomach biopsy discovered that the patient had chronic gastritis, mucosal iron accumulation, and superficial pigment deposition suggestive of pseudomelanosis. Biopsy immunostaining for H. pylori was negative.



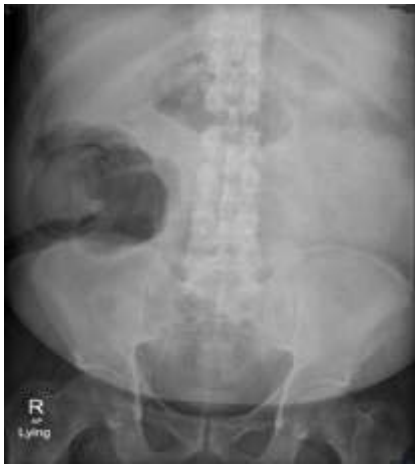
She was continued on iron supplementation at time of discharge due to her significant anemia concerns. No follow-up endoscopy was deemed necessary with her condition, as her hemoglobin remained stable after discharge.

The dark pigment accumulation visualized on endoscopy corresponds to subepithelial pigment deposition within macrophages of the lamina propria histologically. The pigmentation results from several different compounds depending on the etiology. Deposition of lipomelanin, ceroid, iron sulfide, and hemosiderin has been implicated in the formation of this endoscopic appearance. Gastric pseudomelanosis is found more often in patients noted to have a history of hypertension, chronic renal insufficiency, and oral iron supplementation.

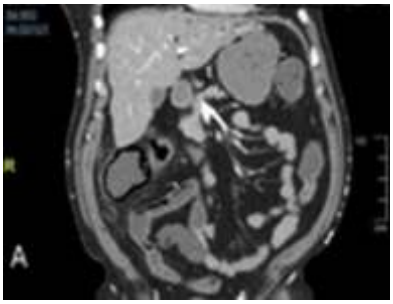
Source: Samies J, Shah RN, Pramick M, Unzueta A. Gastric Pseudomelanosis: An Uncommon Finding. Case Reports in Gastrointestinal Medicine. 2022 Jul 30;2022.

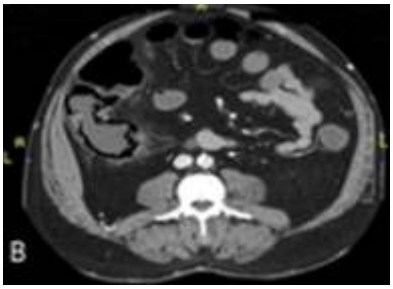
Clinical Question

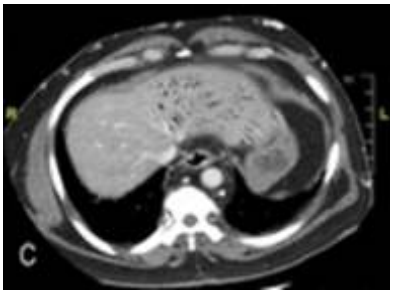
A 58-year-old patient came to our emergency department with abdominal pain and constipation for 1 day. Patient had a history of diabetes mellitus, hypertension, coronary artery disease and end stage renal disease and was on regular haemodialysis. His Blood Pressure was 86/59; Pulse rate, 98; Tempreture, 36.7°C; O2, 99% and Glascow Coma Scale, 15/15. On examination, abdomen was mildly distended though soft and non-tender. A plain radiograph of the abdomen was performed. Abdominal X-ray showed dilated caecum containing concentric air in the bowel wall suggesting bowel ischaemia.



Abdominal CT scan confirming the intramural gas in bowel extending up to the liver bile ducts. Air was also seen in intrahepatic bile ducts extending till periphery of the left lobe.







His inflammatory markers were very high (White Blood Cells, 24 600; Haemoglobin, 14.6; C-Reactive Protein, 514.5; lactate, 5.6; procalcitonin, 96.69). Patient underwent laparotomy and terminal 75 cm of ileum and ascending colon were found to be gangrenous which were resected and end to end anastomosis was performed. Biopsy findings were consistent with non-viable mucosa and thrombosed vessels in the mesentery.

What is the most likely diagnosis?

Source: Rashid M, Aljohani M, Al Mufareh B. Pneumatosis intestinalis with pneumobilia. BMJ Case Reports CP. 2021 Jun 16;14(6):e241823.

Recent Conference

International Conference On Hepatology

Venue: Bien Hoa, Vietnam
Date: 04 Jan 2023

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ISGCON 2023

Venue: Jaipur
Date: 5-7 January 2023

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International Conference on Gastroenterology, Endoscopy and Colonoscopy ICGEC

Venue: New Delhi
Date: 06-07 February, 2023

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22nd International Conference, Gastroenterology and Digestive Disorders

Venue: Amsterdam, Netherlands
Date: February 23-24, 2023

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