Northern California Society for Clinical Gastroenterology

NEWSLETTER

Issue No. 15 | March 2025

Updates in: Guidelines - IBS - Endoscopy Motility & Functional GI Disorders
Colon Cancer Debate GLP-1 Agonists: Roles & Implications in GI
Hepatology: Year in Review IBD Debate Living with Purpose

CALL FOR ABSTRACTS & CASE VIGNETTES

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SUBMISSION DEADLINE:
Wednesday, April 9, 2025

VENUE

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Group Rate:
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The rate expires after **Friday, May 2!**

Thank you to all who attended the 2025 NCSCG Liver Symposium!

WEBCAST NOW AVAILABLE!

Did you miss the conference or want to revisit any of the presentations? Click below to view our webcast!

WATCH NOW

MEET OUR 2025 NCSCG PRESIDENT

Bilal Hameed, MD, FAASLD
Professor of Medicine
Ambulatory Director of Hepatology
University of California, San Francisco
San Francisco, CA

It is an honor and a privilege to introduce myself as the newly elected President of the Northern California Society for Clinical Gastroenterology (NCSCG). I am a Transplant Hepatologist and Professor of Medicine at University of California, San Francisco (UCSF). My journey in medicine began at Dow Medical College in Karachi, Pakistan, where I laid the foundation for my medical career. Following this, I completed my residency and gastroenterology fellowship at the University of Minnesota, and subsequently pursued advanced training with a liver transplant fellowship at UCSF.

Throughout my career, I have been fortunate to work under the mentorship of exceptional leaders whose guidance has significantly shaped my professional growth. Their support and insights have been instrumental in refining my clinical expertise, research focus, and leadership abilities. I am deeply grateful for their influence, which continues to inspire my commitment to education, mentorship, and patient care.

I have served in many key leadership roles, including as the Hepatology Fellowship Program Director for five years from 2015 to 2019 and as the Ambulatory Director of Hepatology. I am passionate about education and mentoring fellows, residents, and students, and I find great fulfillment in supporting the next generation of healthcare professionals.

My research focuses on several pivotal areas within hepatology, including metabolic dysfunction-associated steatohepatitis (MASH) therapeutics, portal hypertension, primary sclerosing cholangitis, and acute liver failure. I am a site Principal Investigator (PI) for the NIH-funded NASH Clinical Research Network (NASH-CRN) and a Co-PI for the NIH-funded Liver Cirrhosis Network (LCN). Additionally, I served as the UCSF PI for the NIH-funded multi-center Acute Liver Failure Study Group (ALFSG). My work has led to over 30 peer-reviewed publications in high-impact journals, and I am deeply committed to advancing clinical research and patient care.

In the realm of professional organizations, I have served on the AASLD Global Outreach and Education Committee and currently co-chair the AASLD Steatotic Liver Disease (SLD) Task Force. I am also the Chair of the Trainee Committee for NCSCG. Beyond these roles, I am a founding member and past president of the Association of Pakistani Descent Gastroenterologists of North America (APGNA), representing over 500 GI professionals in the U.S. Additionally, I am a board member and founding member of the APPNA Community Health Center of the SF Bay Area, a safety-net clinic providing culturally sensitive, high-quality healthcare to underserved communities.

As an immigrant from Pakistan, this opportunity is deeply meaningful to me, reflecting the journey that has shaped my personal and professional aspirations. I take pride in collaborating with liver societies and healthcare institutions in Pakistan, contributing my expertise to bridge critical healthcare gaps. My international collaborations include the UCSF-Gambat Transplant Institute partnership through the TTS-ILTS Paired Transplant Centers Program. This initiative underscores my commitment to global health and transplant education.

As I embark on this role with NCSCG, I look forward to fostering a collaborative environment that promotes education, research, and clinical excellence. I am excited to work alongside each of you to advance the field of gastroenterology and hepatology, enhance patient care, and support the professional growth of our members.

Thank you for this incredible opportunity.

Sincerely,
Bilal Hameed, MD, FAASLD
2025 NCSCG President

IMAGES IN CLINICAL GI

Can you solve the case?

Welcome to Images in Clinical GI, where we present images from interesting cases submitted by some of our members! This time, we present a case from Dr. Abhishek Dimopoulos-Verma, a GI fellow at Stanford. Answers and discussion on this case can be found on page 12. We hope you enjoy!

A 56-year-old man with prior medical history only of tobacco use disorder presented with two months of diarrhea and associated weight loss. He reported 6 episodes of moderate-volume, watery, non-bloody diarrhea per day with associated urgency and occasional nocturnal episodes. He reported a 60-pound weight loss during this time. He denied dysphagia, odynophagia, or poor appetite.

At presentation, his physical exam was notable for bitemporal wasting, mildly dry mucous membranes, and a benign abdomen. Pertinent laboratory studies were: WBC 4.1 (lymphocytes 300/uL), Hgb 8.1, MCV 82, RDW 15.1, Plt 203; Na 133, K 2.6, CO2 23, Cr 1.37; Albumin 3.3, total protein 8.3 and otherwise normal liver enzymes; iron 26, ferritin 1594, iron sat 14%. CRP was elevated at 7.8. TSH was normal. Stool studies were performed: GI PCR positive for Shigella/Enteroinvasive E. coli, with stool culture also positive for Shigella. Stool calprotectin was 3,640 and fecal lactoferrin was positive. Stool C. difficile, giardia, cryptosporidium, O&P, and elastase testing were negative.

CT-abdomen/pelvis showed unremarkable bowel. Treatment for shigellosis with ceftriaxone did not improve his symptoms. EGD and colonoscopy were thus performed (Figure 1), with biopsies taken of the small and large bowel.

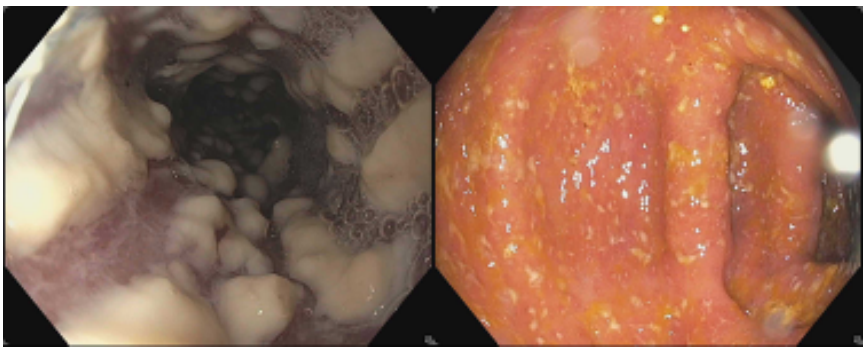

Figure 1: *Endoscopic view of esophagus (left panel) demonstrating circumferential white plaques. Endoscopic view of colon (right panel) shows diffuse congestion, shallow ulceration, and mild erythema of the colonic mucosa throughout the colon.*

What is the cause of patient's symptoms?
What is the patient's underlying diagnosis?

If you have any interesting cases you would like to share or suggestions for this section, please contact us at: NCSCG@pacemedcomm.com

APP CORNER

2025 EDUCATIONAL YEAR

I wanted to share my thoughts on some recent events and upcoming opportunities. The **2025 NCSCG Liver Symposium** at Hayes Mansion in San Jose was a standout. The event was well-organized, with discussions directly applicable to our practice. The Liver Jeopardy game was a highlight, and the late afternoon debate on Immunotherapy as a Bridge to Transplant in HCC was excellent. It was well-attended by hepatologists, fellows, and Advanced Practice Providers. A big thank you to the industry for sponsoring this event.

The Crohn's and Colitis Congress held 2/6-2/8 at Moscone Center in San Francisco, was a great success. The scientific sessions were fantastic, and it was wonderful catching up with friends. However, I've noticed an increasing trend of APPs leaving for industry roles, which is a bit disheartening.

Looking ahead:

- I will be attending the 5th Liver Connect in San Antonio (3/20-3/22).
- DDW will be in San Diego (5/2-5/6), and I'm looking forward to seeing you there.
- Don't miss the **NCSCG GI Symposium** in beautiful Monterey (5/17-5/18) at the Hyatt Regency. We'll cover colorectal cancer, IBD, motility, and the latest in hepatology from DDW 2025.
- GI Reconnect will be in Denver at the Gaylord Center (6/5-6/7).
- The 2025 GHAPP will take place at Red Rock Resort in Las Vegas (9/4-9/6). Don't forget to apply for financial scholarships to help with travel and lodging.
- The ACG 2025 meeting will be in Phoenix (10/24-10/29). See you in sunny Arizona.
- The 2025 AASLD Liver meeting will be in Washington DC (11/07-11/11), where I'll likely participate virtually.

2025 is shaping up to be a year filled with exciting learning opportunities. Hope to see you at some of these events!

Mikhail Alper, PA-C
California Gastroenterology Associates (Fresno/Madera)
NCSCG APP Committee Chair

Margaret Zhou is a Clinical Assistant Professor of Medicine at Stanford University. She specializes in therapeutic endoscopy with expertise in treating Barrett's esophagus and disorders of the pancreas and bile duct. Her research interests are in early detection of outcomes of esophageal and gastric neoplasia. She is actively involved in multiple national GI societies and currently serves on the American Gastroenterological Association (AGA) Clinical Guidelines Committee and AGA Trainee and Early Career Committee.

Innovations in Screening and Risk Stratification in Barrett's Esophagus

Margaret J. Zhou
Division of Gastroenterology and Hepatology, Department of Medicine, Stanford University School of Medicine, Stanford, CA, USA.

Barrett's esophagus (BE) is the only known precursor lesion for esophageal adenocarcinoma (EAC). Gastroenterological societies recommend BE screening in patients with risk factors, including chronic gastroesophageal reflux disease (GERD), male sex, non-Hispanic White ethnicity, age over 50, history of tobacco use, obesity, or family history of BE/EAC.1 However, despite efforts to improve screening and risk stratification, the incidence of EAC has continued to increase over the last several decades, and EAC continues to be diagnosed at late stages with poor 5-year survival.2 Recent advancements in screening and risk stratification approaches are reshaping clinical strategies to improve access to BE screening, early detection of neoplasia, and EAC outcomes.

Non-Endoscopic Screening Tools: Expanding Access to Early Detection

Traditional endoscopy with biopsy remains the gold standard for diagnosing BE, but its invasiveness, cost, and requirement for sedation limit widespread screening. Recent innovations in non-endoscopic methods offer promising alternatives.

Swallowable Capsules: Several non-endoscopic cell collection devices have been developed, which are used to obtain esophageal specimens using a "sponge on a string" or inflatable balloon on a catheter that can scrape the esophageal lining to obtain cell samples (Figure 1). These are used in conjunction with various biomarkers to diagnose BE or EAC non-endoscopically. To date, these devices include EsoCheck, which is used with a 2-biomarker assay for VIM and CCNA1; Cytosponge, used in combination with the immunohistochemical stain for trefoil factor 3; and EsophaCap, which is currently under investigation using a methylated DNA marker panel. Currently, EsoCheck is the only one of these devices commercially available in the United States. However, active investigation is ongoing for the use of Cytosponge and EsophaCap. The Cytosponge was studied in a large randomized controlled trial in the United Kingdom, where BE diagnosis in chronic GERD patients randomized to Cytosponge versus usual care was significantly higher (2% vs 0.2%).3 Most recently, the EsophaCap device has been used in a study identifying 12 methylation markers that distinguish BE from normal esophageal biopsies.4

Unsedated Transnasal Endoscopy (TNE): TNE is an alternative to standard endoscopy that uses ultra-thin endoscopes (<6mm in diameter) introduced via the nasal passage, eliminating the need for sedation. This approach has been shown to have comparable performance to standard endoscopy (sensitivity of 91%, specificity of 96%), with some limitations including ~10% inability to intubate the nares, acquisition of smaller biopsy specimens, and dependence on operator technique and patient tolerance.5

Novel Technologies for Risk Stratification: A Step Towards Precision Medicine

Accurate risk stratification in BE is critical to identify patients at increased risk for progression to high-grade dysplasia (HGD) or EAC. New technologies are emerging that may enhance the ability to predict malignant transformation beyond conventional histopathological assessment.

WATS-3D (Wide-Area Transepithelial Sampling with 3D Analysis): WATS-3D uses a brush biopsy with the aim of sampling a broader surface area and deeper microbiopsies compared to standard forceps biopsies. The tissue specimen is analyzed with a 3D computer analysis system that reconstructs the 3D structure of the tissue samples using artificial intelligence and identifies high-risk areas that are presented to a pathologist for analysis. A recent meta-analysis evaluated the incremental yield of dysplasia (including indefinite for dysplasia, low-grade dysplasia, and HGD) detected using both WATS-3D and Seattle protocol biopsies versus biopsy alone, and found an incremental yield of WATS-3D of 7.2%.6 WATS-3D is currently used as an adjunctive sampling technique in addition to Seattle protocol biopsies. An ongoing randomized controlled trial is in process evaluating the yield of WATS-3D versus Seattle protocol biopsies.

TissueCypher: TissueCypher is a tissue systems pathology test performed on standard paraffin-embedded biopsy specimens. The molecular assay uses artificial intelligence and multiplexed biomarker analysis, analyzing 15 features from 9 biomarkers or nuclear morphology/tissue architecture to predict the likelihood of BE progression to HGD or EAC over 5 years. A recent meta-analysis found that a high-risk TissueCypher risk score independently predicted increased risk of progression to HGD or EAC with an odds ratio of 6.0, adjusting for known risk factors for progression including low-grade dysplasia.7

P53: Aberrant expression of the tumor suppressor p53 (both over-expression and absent expression) has been identified as a possible risk stratification tool to predict the progression of BE to HGD and EAC. P53 abnormalities are most often assessed using p53 immunohistochemical (IHC) staining of standard biopsy specimens. Studies have demonstrated that abnormal p53 IHC staining is strongly associated with neoplastic progression in BE patients, regardless of histologic diagnosis. In a recent retrospective cohort study, abnormal p53 expression correlated with a hazard ratio of 5.0 for progression to HGD or EAC, and this association was further validated in a prospective cohort.8

Esopredict: Esopredict is methylation-based biomarker assay designed to quantify the risk of neoplastic progression in BE patients. The assay uses DNA methylation biomarkers from multiple genes as well as age to stratify patients into lower (low/low-moderate) or higher (high-moderate/high) risk for progression to HGD or EAC within 5 years. Clinical validation studies have shown that patients classified as higher risk by Esopredict were 6 times more likely to progress compared to those at lower risk.9

The landscape of BE management is rapidly evolving with advances in screening technologies and risk stratification tools. Non-endoscopic cell collection devices and TNE are expanding access to early detection, while biomarker-based risk prediction tools are further refining BE risk assessment. While additional validation of these tools is needed, these innovations are paving the way for a more accessible and individualized approach to BE care, ultimately with the goal of improving BE outcomes and reducing the burden of EAC.

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Figure 1: Non-endoscopic cell collection devices used for Barrett's esophagus screening

Figure adapted from Codipilly et al., Current Gastro Reports 2019; 21-42; Lucid Diagnostic (luciddx.com)

Figure 2: WATS-3D brush

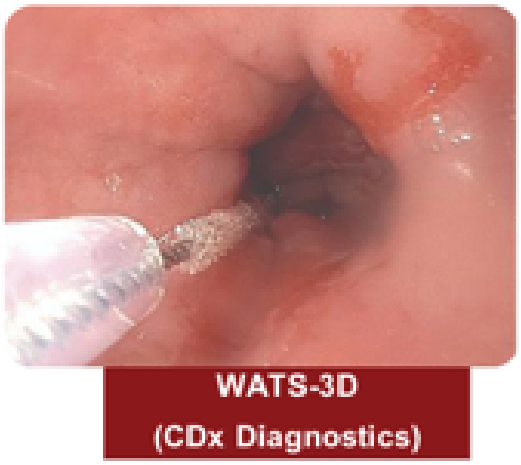


Figure adapted from CDx Diagnostics

TRAINEE WEBINAR SERIES

The NCSCG Trainee Webinar Series aims to provide an education and career development focused resource for our GI community. Our series incorporates sessions specifically focused on important aspects of career development and the job search process. It will also include high yield and hot topics in clinical gastroenterology and hepatology. We offer these as a free resource to anyone interested in participating.

FELLOW MEAL REIMBURSEMENT

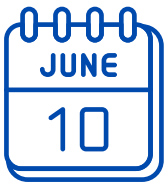
Since we aren't meeting in person, we offer all NCSCG fellows who attend the webinars a meal up to the value of $30 to be eaten at the time of the webinar.

1. **Register for the series**
2. **Join NCSCG**
3. **Attend the webinar live**
4. **Order & eat during webinar**
5. **Reimburse meal up to $30**

WEBINAR SCHEDULE

Acute Liver Failure
Nghiem Ha, MD, MAS

Management of Functional GI Disorders
Liat Fine, MD



C. *diff* and FMT
Neil Stollman, MD

Solution and Discussion

Solution

Esophageal candidiasis and pan-enteric CMV infection with new HIV/AIDS diagnosis

Discussion

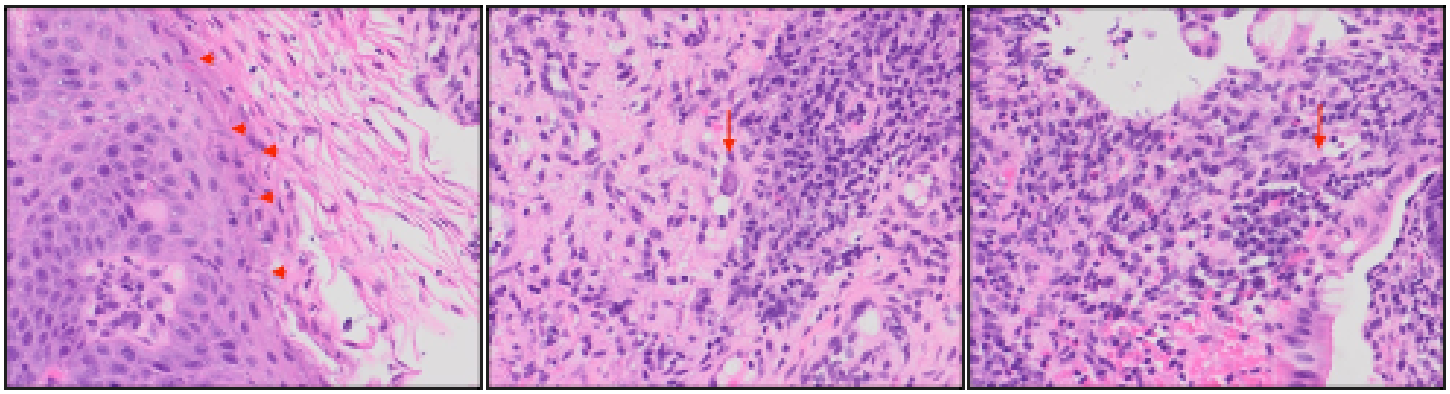


Figure 2: *Esophageal histology showed fungal hyphae consistent with candida (red markers, left panel) as well as scattered CMV viral inclusions in the lamina propria (red arrow, middle panel). Biopsies of endoscopic pancolitis revealed patchy acute colitis with CMV viral inclusions (red arrow, right panel).*

After endoscopic diagnosis of candidal esophagitis, patient was started on fluconazole. He was ultimately diagnosed with HIV/AIDS with a viral load of 390,000 and a CD4% of 2. Esophageal and colonic histology are described in Figure 2. An H&E stain of the duodenum also had a focus suspicious for CMV viral inclusion (not pictured).

Co-infection of candida and CMV in the esophagus is common in patients with HIV/AIDS. When severe candidal plaque in the esophagus is endoscopically removed, underlying esophageal ulcers have been found in almost 25% of cases1. Of subjects with ulcers, 43% of patients are diagnosed with CMV esophagitis1. Identification of those with CMV esophagitis co-infection is important as CMV esophagitis diagnosis is associated with up to 25% mortality at 1 year2.

While our patient likely had shigellosis as well, this was unlikely the primary cause of his presentation as diarrhea only improved once IV ganciclovir was initiated. He was transitioned to oral therapy, started on antiretroviral therapy for HIV, and discharged home.

References:
1.Wilcox CM. A technique to examine the underlying mucosa in patients with AIDS and severe Candida esophagitis. Gastrointestinal Endoscopy 1995;42:360-363.
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Acknowledgements
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