

Transpapillary Gallbladder Stent Placement for Long-Term Therapy of Acute Cholecystitis

Select patients with acute cholecystitis (AC) may be poor candidates for cholecystectomy. ERCP-guided transpapillary gallbladder (GB) drainage (ERGD), gives one modality for nonoperative management of AC in these patients to evaluate the long-term success of destination ERGD and determine the rate of technical and clinical success, number of repeat procedures, rate of adverse events, and risk factors for recurrent AC were evaluated.

Consecutive patients with AC, who were not candidates for cholecystectomy underwent ERGD with attempted transpapillary GB plastic, double-pigtail stent placement in a tertiary hospital from January 2008 to December 2019. Long term success was defined as no AC after ERGD until 6 months, death, or reintervention. Technical success was defined as placement of at least 1 transpapillary stent into the GB and clinical success as resolution of AC symptoms with discharge from the hospital.

Long-term success was achieved in 95.9% of patients (47/49), technical success in 96% (49/51), and clinical success 100% in those with technical success. Mild adverse events occurred in 5.9% (N=3). Mean follow-up was 453 days after ERGD (range, 18-1879). A trend toward longer time for recurrence of AC was seen in patients with 2, rather than 1 GB stent placed and more repeat procedures were performed when a single stent was placed.

It was concluded that ERGD with transpapillary GB double-pigtail stent

placement was a safe and effective long-term therapy for a poor surgical candidate with AC. Risk factors for recurrence include stent removal and single-stent therapy. Double-stent therapy is not always technically feasible, but may salvage failed single-stent therapy or recurrence after elective stent removal and may therefore be the preferred treatment modality.

Storm, A., Vargas, E., Chin, J., et al. "Transpapillary Gallbladder Stent Placement for Long-Term Therapy of Acute Cholecystitis." *Gastrointestinal Endoscopy*, 2021; Vol. 94, pp. 742-748.

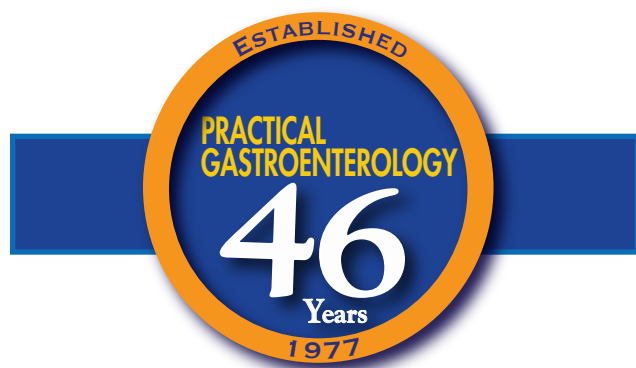
Effectiveness of Vaccination in COVID-19

To explore real-world effectiveness of coronavirus disease 2019 (COVID-19) vaccination on subsequent infection in patients with IBD with diverse exposure to immunosuppressive medications, a retrospective cohort study of patients in the VA with IBD diagnosed before December 18, 2020, the start date of the VHA patient vaccination program was carried out.

IBD medication exposures included mesalamine, thiopurine, anti-tumor necrosis factor virologic agents, vedolizumab, ustekinumab, tofacitinib, methotrexate, and corticosteroid use. Inverse probability weighting and Cox's regression were utilized with vaccination status as a time-updating exposure and computed vaccine effectiveness from incidence rates.

A total of 14,697 patients, 7,321 of whom received at least 1 vaccine dose (45.2% Pfizer, 54.8% Moderna) were included. The cohort had median age 68 years, 92.2% were men, 80.4% were white and 61.8% had ulcerative colitis. In follow-up data through April 20, 2021, unvaccinated individuals had the highest raw proportion of SARS-CoV-2 infection (197 {1.34%} vs. 7 {0.11%}) fully vaccinated). Full vaccination status, but not partial vaccination status was associated with a 69% reduced

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hazard of infection relative to an unvaccinated status (HR 0.31), corresponding to an 80.4% effectiveness.

It was concluded that full vaccination (> 7 days after the second dose), against SARS-CoV-2 infection has an 80.4% effectiveness in a broad IBD cohort with diverse exposure to immunosuppressive medications. These results may increase patient and provider willingness to pursue vaccination in these settings.

Khan, N., Mahmud, N. "Effectiveness of SARS-CoV-2 Vaccination in a Veterans Affairs Cohort of Patients with Inflammatory Bowel Disease with Diverse Exposure to Immunosuppressive Medications." *Gastroenterology* 2021; Vol. 161, pp. 827-836.

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Common Bile Duct Dilatation

To determine the role of EUS in the exclusion of benign and malignant pathology that might require further intervention in the presence of asymptomatic common bile duct dilatation (CBD), the yield of EUS evaluation for this indication was evaluated through systematic review, attempting to appraise the yield of EUS interpretation in asymptomatic patients with radiologic evidence of that dilatation.

A protocolled search (PROSPERO: CRD42020193428) extracted original studies from the Cochrane Library, Ovid Embase, Google Scholar, Ovid Medline, PubMed, Scopus, and Web of Science Core Collection, that described diagnostic yield of EUS among asymptomatic patients with biliary dilatation. Cumulative EUS diagnostic yield was calculated through meta-analysis of proportions, using inverse variance methods and a random-effects model.

Of 2,616 studies, 8 delineated the EUS yield among 224 asymptomatic patients. The cumulative yield of EUS for any pathology was 11.2%. The EUS yield for benign etiologies was 9.2%, of which choledocholithiasis comprised 3.4% and malignant etiologies 0.5% of cases.

It was concluded that EUS in patients with asymptomatic CBD dilatation does yield findings of choledocholithiasis and malignancy, albeit at low rates. Clinical decision-making plays a role in its application.

Choda, A., Dawod, S., Grimshaw, A., et al. "Evaluation of Diagnostic Yield of EUS Among Patients with Asymptomatic Common Bile Duct Dilatation: Systematic Review and Meta-Analysis." *Gastrointestinal Endoscopy*, Vol. 94, No. 5: 2021, pp. 890-901.

Pancreatic Cyst Fluid Glucose in Diagnosis of Mucinous Pancreatic Cysts

A study was carried out to perform a systematic review and meta-analysis to evaluate the diagnostic characteristics of pancreatic

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cyst fluid glucose, compared with CEA for pancreatic cystic lesions. Individualized searches were developed in accordance with preferred reporting items for systematic reviews and meta-analyses and meta-analysis of observational studies and epidemiologic guidelines and meta-analysis analyzed according to Cochrane diagnostic test accuracy working group methodology. A bivariate model was used to compute pooled sensitivity and specificity, likelihood ratio, diagnostic odds ratio and summary, receiving operating characteristics curve for intracystic glucose or CEA alone or in combination testing.

Eight studies (609 lesions), mean patient age 63.56 years; 60.36% women were included. The pooled sensitivity for pancreatic cyst fluid glucose was significantly higher compared with CEA alone (91%), with no difference in specificity (86%). Diagnostic accuracy was significantly higher for pancreatic cyst fluid glucose vs CEA alone (94% vs 85%). Combination testing with pancreatic cyst fluid glucose and CEA did not improve the diagnostic accuracy, compared with glucose alone (97% vs 94%).

It was concluded that low pancreatic cyst fluid glucose was associated with high sensitivity and specificity with significantly improved diagnostic accuracy, compared with CEA alone, with a diagnosis of mucinous vs nonmucinous pancreatic cyst lesion.

McCarty, C., Garg, R., Rustagi, T. "Pancreatic Cyst Fluid Glucose in Differentiating Mucinous From Nonmucinous Pancreatic Cysts: A Systematic Review and Meta-Analysis." *Gastrointestinal Endoscopy* 2021; Vol. 94, pp. 698-712.

Role of EUS in Patients with Asymptomatic Vitamin D Intake and Risk of Colorectal Cancer

While vitamin D has been implicated in colorectal cancer (CRC) pathogenesis, to

determine the association between vitamin D intake and risks of early-onset CRC and precursors among women enrolled in Nurses' Health Study II, the association was examined.

Multivariable-adjusted hazard ratios (HRs) for early-onset CRC were estimated with Cox proportional hazards model. Multivariable-adjusted odds ratios (ORs) for early-onset conventional adenomas and serrated polyps were estimated with logistic regression model.

A total of 111 incident cases of early-onset CRC were documented during 1,250,560 person-years of followup (1991 to 2015). Higher total vitamin D intake was significantly associated with a reduced risk of early-onset CRC (HR >450 IU/day vs <300 IU/day, 0.49; HR per 400 IU/day increase was 0.46). The inverse association was significant and appeared more evident for dietary sources of vitamin D than supplemental vitamin D (HR per 400 IU/day increase 0.77). For CRC precursors, ORs per 400 IU/day increase were 0.76 for conventional adenoma and 0.85 for serrated polyp.

It was concluded that in a cohort of younger women, higher total vitamin D intake was associated with decreased risks of early-onset CRC and precursors.

Kim, H., Lipsyc-Sharf, M., Zong, X., et al. "Total Vitamin D Intake and Risks of Early-Onset Colorectal Cancer and Precursors." *Gastroenterology* 2021; Vol. 161, pp. 1208-1217, October 2021.

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