xenograft tumor model was introduced to investigate the role of OLA1 in vivo.

Results OLA1 demonstrated a higher expression in gastric cancer tissues with stage III-IV compared to paired normal tissue (25 paired sample; $P<0.001$), and the high level of OLA1 was correlated with poor prognosis ($HR=2.40$, $P=0.008$) and decreased sensitivity to 5-fluorouracil adjuvant chemotherapy ($HR=2.63$, $P<0.001$). Overexpression of OLA1 in gastric cancer cells reduced the sensitivity to 5-fluorouracil treatment, while knockdown of OLA1 by shRNA in gastric cancer cells significantly inhibited the cell proliferation, migration, invasion and tumorigenicity. However, OLA1 did not affect the cell cycle and proliferation in normal gastric epithelium cells. Mechanistically, WGCNA analysis of TCGA RNA-seq data suggested that high expression of OLA1 will promote G2/M phase transition and eventually lead to tumor progression, while knockdown of OLA1 in gastric cancer cells significantly prolonged G2/M phase (control vs KD: 10.65% vs 21.59%; $P<0.01$).

Conclusions OLA1 inhibition could suppress gastric cancer progression and enhance the sensitivity to adjuvant chemotherapy with sparing normal gastric epithelium cells. Therefore, OLA1 could be a novel and promising target in treating gastric cancer.

IDDF2021-ABS-0110 THE FEASIBILITY OF PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG) IN POST-GASTRECTOMY PATIENTS

Toh Yoon Ezekiel Wong*, Kaori Yoneda. *Hiroshima Kyoritsu Hospital, Japan*

10.1136/gutjnl-2021-IDDF.140

Background Although percutaneous endoscopic gastrostomy (PEG) is considered the route of choice for long-term enteral nutrition, this procedure may be difficult to perform in post-gastrectomy patients and research addressing this issue is limited. We report our experience with PEG, percutaneous endoscopic duodenostomy (PED) and percutaneous endoscopic jejunostomy (PEJ) performed in post-gastrectomy patients at our hospital.

Methods 29 post-gastrectomy patients (23 men and 6 women) who received PEG for enteral nutrition at our hospital between April 2007 and April 2021 were included in this study. Baseline characteristics and clinical outcomes of interest were analyzed retrospectively.

Results Mean age was 81.7 (range: 61 to 93) years old. 18 patients (62%) had cerebrovascular disease, 14 patients (48%) had dementia and 12 patients (41%) had respiratory diseases as comorbidities contributing to their dysphagia. 22 patients underwent distal gastrectomy (14 Billroth I procedures and 8 Billroth II procedures), 2 patients received proximal gastrectomy and 5 had either wedge or central gastrectomy. 26 patients received their catheter placements using the Push technique, while 3 had the Introducer technique used. In 8 patients with distal gastrectomy, the catheter was inserted slightly beyond the anastomosis site (PED/PEJ). Postoperatively, 8 patients (28%) developed peristomal infection/leakage, including 3 of the PED/PEJ patients (37%). Feeding-related aspiration pneumonia was observed in 5 patients (17%) and diarrhea in 3 patients (10%). The average postoperative length of stay was 25.6 days. 3 patients (10%) died before discharge but none within 30 days after the procedure.

Conclusions We reported our experience with PEG/PED/PEJ in 29 post-gastrectomy patients. When successfully performed in these patients, PEG can remain a useful procedure for enteral nutrition, with mortality rates comparable to other PEG patients. However, post-gastrectomy patients (especially for PED/PEJ) may be more prone to peristomal complications.

IDDF2021-ABS-0111 NOMOGRAM OF DEVELOPMENT AND VALIDATION FOR ESTIMATION OF INADEQUATE BOWEL PREPARATION RISK BEFORE COLONOSCOPY IN ADULTS

¹Xin Yuan*, ¹Hui Gao, ¹Shuhao Zheng, ²Cenqin Liu, ³Weihong Wang, ³Jiarong Xie, ³Zhixin Zhang, ³Lei Xu. ¹School of Medicine, Ningbo University, China; ²School of Medicine, Zhejiang University, China; ³Department of Gastroenterology, Ningbo First Hospital, China

10.1136/gutjnl-2021-IDDF.141

Background To develop and validate an updated nomogram of inadequate bowel preparation risk prediction in adults before colonoscopy.

Methods 1,216 underwent colonoscopy in a tertiary hospital in China: 916 patients in the derivation cohort were used to develop the nomogram and a separate set of 300 patients in the validation cohort were used to validate the model. Patients were ready for bowel preparation before colonoscopy. Logistic regression model in the derivation cohort to develop the nomogram. Risk factors considered included age, gender, education level (illiteracy or primary, junior high, senior high and college or higher), hospitalization, body mass index (BMI), diabetes, hypertension, history of surgery (colorectal surgery, other abdominal/pelvis surgery and no surgery), constipation, examination time (morning or afternoon), history of colonoscopy [history of adequate bowel preparation (ABP), history of inadequate bowel preparation (IBP) and no history of colonoscopy], indication of colonoscopy (diagnosis, physical examination and surveillance) and medication (use drug or not). Measures of discrimination and calibration were determined in the internal and external validation cohort separately. Inadequate bowel preparation defined by Boston Bowel Preparation Score (BBPS) with less than 6 in total or less than 2 in any segment colon.

Results 224 patients of inadequate bowel preparation (24.5%) were identified in the derivation cohort. Only 5 risk factors were considered in the final model (IDDF2021-ABS-0111

Abstract IDDF2021-ABS-0111 Figure 1

Figure 1. Nomogram to estimate the probability of adequate bowel preparation), including hospitalization, diabetes, constipation, history of colonoscopy and indication of colonoscopy. The model had high levels of discrimination (AUC=0.75) and excellent calibration. The Hosmer–Lemeshow test showed no statistical significance in both cohorts. Overall performance of the updated model was better than the previous ones available.

Conclusions Updated inadequate bowel preparation nomograms were developed and validated. The inclusion of practicability variables in the new model can help doctors to identify those at most risk of inadequate bowel preparation easily.

IDDF2021-ABS-0117 PREVALENCE OF POUCHITIS IN BOTH ULCERATIVE COLITIS AND FAMILIAL ADENOMATOUS POLYPOSIS; A SYSTEMATIC REVIEW AND META-ANALYSIS

¹Danuja Sriranganathan*, ¹Yakup Kilic, ²Jonathan Segal, ³Nabil Quraishi. ¹Imperial College Healthcare NHS Trust, UK; ²The Hillingdon Hospitals NHS Foundation Trust, UK; ³University Hospitals Birmingham NHS Foundation Trust, UK

10.1136/gutjnl-2021-IDDF.142

Background Pouchitis is a clinically significant complication of ileal pouch–anal anastomosis (IPAA) with its prevalence varying in the literature. Pouchitis is thought to occur more commonly in patients with Ulcerative Colitis (UC) than Familial Adenomatous Polyposis (FAP). We conducted a systematic review with a meta-analysis of all published literature to report the prevalence of acute and chronic pouchitis in UC and FAP.

Methods A PRISMA meta-analysis was conducted by searching the Embase, Embase classic and Pubmed databases between 1970–2021 to identify studies that reported the incidence of pouchitis. We combined the proportion of patients with pouchitis in each study to give a pooled prevalence. We then performed a random-effects model in order to pool the data to provide an estimate of the prevalence of pouchitis. Heterogeneity was assessed using the I^2 statistic. All statistics were carried out using R with the package ‘meta’.

Results In total, 4709 abstracts were screened with 26 full papers and conference abstracts meeting the inclusion criteria. Our analysis showed that in patients with UC; the prevalence of acute pouchitis was 0.18 (95%CI: 0.15-0.22) with a significant heterogeneity of $I^2 = 89\%$ $P < 0.01$ (IDDF2021-ABS-0117 Figure 1). The prevalence of chronic pouchitis in UC was found to be 0.13 (95% CI: 0.10-0.18) with a significant

Abstract IDDF2021-ABS-0117 Figure 2 Forest plot of chronic pouchitis prevalence in UC studies

Abstract IDDF2021-ABS-0117 Figure 3 Forest plot of acute and chronic pouchitis prevalence in FAP studies

Abstract IDDF2021-ABS-0117 Figure 1 Forest plot of acute pouchitis prevalence in UC studies