Abstract IDDF2021-ABS-0139 Figure 2

Conclusions Endoscopic ultrasonography has demonstrated high diagnostic value related to various anatomical variants of HH. EndoUS is of the greatest importance for the verification of HH type I of small size.

IDDF2021-ABS-0144 DENTAL INJURY DURING ENDOSCOPY: AN UNDERRECOGNIZED TEETHING SAFETY ISSUE

¹Gabrielle Loh Yi Wen*, ¹Chelsea Tan Qiu Lin, ²Benjamin Tay Wei Rong, ²John Mok, ²Calvin Koh Jianyi, ²Leo Juanda, ²Tien Ho Siah. ¹National University of Singapore, Singapore; ²National University Hospital, Singapore

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Background Dental injury is an underrecognized preventable complication during endoscopy. An audit of same-day procedure cancellation in our endoscopy center showed that 43% of cases are related to tooth safety concerns. A review of the literature showed that dental injury was under-reported in endoscopy related journals but an important issue in anaesthesia. Dental injury in anaesthesia is variably estimated to occur at a rate of approximately one in 1,000 to 4,500. It represents up to half of all anaesthetic claims. We reviewed the preventive measures and management strategy of dental injury.

Methods We have reviewed the available literature and worked with a dental expert to suggest a few steps to improve tooth safety during endoscopy:

Results Key steps in preventive measures: 1) Pre-endoscopic tooth screening: Optimal pre-endoscopic assessment should include a comprehensive dental assessment, documentation and explanation of individualized risk involved. 2) Identification of risk factors: Evidence of periodontal disease and its infective complications, pre-existing dental pathology such as missing or loose teeth, and dental restorations. 3) Comprehensive documentation of pre-existing dental defects prior to endoscopy should be done.

Key steps in dental injury management: 1) Early involvement of dentist: If a dental injury occurs or a missing tooth is found during endoscopy, a dentist should be called to do an on-table consult. 2) Tooth retrieval whenever possible: If the dentist is unavailable or delayed, the missing tooth should be localised and retrieved. Upon retrieval of the tooth or tooth fragments, the dental officer on-call should be consulted for specific management. 3) Radiographic assistance: If localisation is not possible, a chest X-ray should be done, with the consultation of Thoracic Surgery.

Conclusions We encourage these simple measures to be implemented in the clinic and endoscopy center to prevent dental injury during endoscopy.

IDDF2021-ABS-0146 PEDIATRIC COLONOSCOPY IN A TERTIARY CENTER: A 10-YEAR EXPERIENCE

Jan Pofor Mantos*, Portia Menelia Monreal, Caroline Anne Castro. *University of Santo Tomas Hospital, Philippines*

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Background There has been no retrospective study yet on the role of colonoscopy in children in our local setting; thus, this is the first study to review the experience of pediatric colonoscopy in the Philippines.

Methods This is a cross-sectional study through retrospective chart review with an analytical component. The study included in-patients aged 0 to 18 years old who underwent their first colonoscopy between January 1, 2010 and December 31, 2019 at the University of Santo Tomas Hospital.

Results A total of 196 respondents were included in the study with a mean age of 8.6 years, with slight male predominance (51.5%).

Table 1. The most common indication for colonoscopy was hematochezia. Among the patients with hematochezia, 94.2% had positive colonoscopy findings (IDDF2021-ABS-0146 Table 1).

Table 2. The most common findings were non-specific colitis, polyps, non-specific pancolitis, internal hemorrhoids, and ileitis (IDDF2021-ABS-0146 Table 2).

Table 3. The most common bowel preparation used were Fleet enema, Bisacodyl suppository, and Castor oil (IDDF2021-ABS-0146 Table 3).

Abstract IDDF2021-ABS-0146 Table 1 Descriptive Statistics for the Indications for Colonoscopy (N=196)

Indications of Colonoscopy	Frequency (f)	Percentage (%)	95% Confidence Interval (CI)
Hematochezia	156	79.6%	73.3%-84.7%
Constipation	5	2.6%	1.1%-6.0%
Melena	10	5.1%	2.8%-9.3%
Diarrhea	10	5.0%	2.8%-9.3%
Abdominal Pain	12	6.1%	3.5%-10.5%
Weight Loss	1	0.5%	0.1%-3.6%
Occult Bleeding	1	0.5%	0.1%-3.6%
Surveillance	1	0.5%	0.1%-3.6%

Table 4. The most commonly utilized anesthesia was Propofol. The cecal intubation rate was 91.8%, with 55.1% success rate in ileal intubation (IDDF2021-ABS-0146 Table 4).

Table 5. The results indicated that for every one year increase in the age of the respondents, the odds of having a normal colon increases by 13%, and the probability of having colonic polyps decreases by 14%, respectively (IDDF2021-ABS-0146 Table 5).

Table 6. Results showed that among patients with hematochezia, the likelihood of having a normal colon is 4.74 times

lower than those without hematochezia, and the odds of having colonic polyps are 9.23 times higher among those with hematochezia than those without the symptom. Furthermore, among those with constipation, the likelihood of developing proctitis and ulcerative colitis was 23.63 times and 15.67 times higher than those without constipation, respectively (IDDF2021-ABS-0146 Table 6).

Conclusions A safe and successful colonoscopy can be achieved in the majority of children with good bowel preparation and adequate sedation. Colonic polyp should be strongly

Abstract IDDF2021-ABS-0146 Table 2 Descriptive Statistics for the Common Colonoscopy Findings among the Respondents (N=196)

Colonoscopy Findings	Frequency (f)	Percentage (%)	95% Confidence Interval (CI)
Normal Colon	18	9.2%	5.8%-14.1%
Non-Specific Colitis	97	49.5%	42.5%-56.5%
Non-Specific Pancolitis	20	10.2%	6.7%-15.3%
Infectious Colitis	1	0.5%	0.1%-3.6%
Proctitis	3	1.5%	0.5%-4.7%
Terminal Ileitis	12	6.1%	3.5%-10.5%
T/C Inflammatory Bowel Disease	6	3.1%	1.4%-6.7%
Crohn's Disease	2	1.0%	0.3%-4.0%
Ulcerative Colitis	4	2.0%	0.8%-5.4%
Colonic Polyp	53	27.0%	21.2%-33.8%
Internal Hemorrhoids, Grade 1	11	5.6%	3.1%-9.9%
Internal Hemorrhoids, Grade 2	3	1.5%	0.5%-4.7%
External Hemorrhoids	1	0.5%	0.1%-3.6%
Peutz Jegher Syndrome	2	1.0%	0.3%-4.0%
Intestinal Parasitism	6	3.1%	1.4%-6.7%

Abstract IDDF2021-ABS-0146 Table 3 Descriptive Statistics for the Preparation for Colonoscopy among the Respondents (N=196)

Preparation for Colonoscopy	Frequency (f)	Percentage (%)	95% Confidence Interval (CI)
Bowel Preparation Regimen			
Bisacodyl	112	57.14%	50.1%-64.0%
Poly-Ethylene Glycol (PEG)	11	5.61%	3.1%-9.9%
Sodium Picosulfate	21	10.71%	7.1%-15.9%
Castor Oil	99	50.51%	43.5%-57.5%
Lactulose	8	4.08%	2.0%-8.0%
Fleet Enema	148	75.51%	69.0%-81.0%
Sodium Picosulfate + Mg Oxide + Anhydrous citric acid	15	7.65%	4.7%-12.4%
Senna	1	0.51%	0.1%-3.6%
Phosphosoda	58	29.59%	23.6%-36.4%
BPPS Score			
Excellent	65	33.16%	26.9%-40.1%
Good	101	51.53%	44.5%-58.5%
Fair	26	13.27%	9.2%-18.8%
Poor	4	2.04%	0.8%-5.4%

Abstract IDDF2021-ABS-0146 Table 4 Descriptive Statistics for the Anesthesia, Bowel Segment Reached, and Intervention of Colonoscopy among the Respondents (N=196)

	Frequency (f) or Mean (X)	Percentage (%) or Standard Deviation (SD)	95% Confidence Interval (CI)
Anesthesia Used (f,%)			
Pethidine	2	1.0%	0.3%-4.0%
Fentanyl	20	10.2%	6.7%-15.3%
Propofol	191	94.5%	94.0%-99.0%
Ketamine	1	0.5%	0.1%-3.6%
Midazolam	13	6.6%	3.9%-11.1%
Bowel Segment Reached (f,%)			
Ascending Colon	6	3.1%	1.4%-6.7%
Transverse Colon	5	2.6%	1.1%-6.0%
Descending Colon	2	1.0%	0.3%-4.0%
Cecum	72	36.7%	30.2%-43.8%
Terminal Ileum	108	55.1%	48.0%-62.0%
Splenic Flexure	1	0.5%	0.1%-3.6%
Hepatic Flexure	2	1.0%	0.3%-4.0%
Interventions (f,%)			
Snare Polypectomy	46	23.5%	18.0%-30.0%
Forceps Polypectomy	8	4.1%	2.0%-8.0%
Thermal Coagulation	4	2.0%	0.8%-5.4%
Epinephrine Injection	21	10.7%	7.1%-16.0%
Duration of Procedure (minutes; X, SD)	40.9	18.2	38.4-43.5%

Abstract IDDF2021-ABS-0146 Table 5 Binary Logistic Regression for the Association of Demographic Characteristics on the Selected Colonoscopy Findings among the Respondents (N=196)

	Colonoscopy Findings					
	Normal Colon		Non-Specific Colitis		Colonic Polyp	
	OR	p-value	OR	p-value	OR	p-value
Age	1.13*	0.012	1.00	0.977	-1.14†	0.001
Sex (Female)	1.07	0.892	1.39	0.255	-1.47	0.2
	T/C Inflammatory Bowel Disease		Crohn's Disease		Ulcerative Colitis	
	OR	p-value	OR	p-value	OR	p-value
Age	-1.14	0.176	1.03	0.821	-1.14	0.272
Sex (Female)	2.18	0.376	1.00	-	-2.87	0.364

*Significant at 0.05

†Significant at 0.01

Abstract IDDF2021-ABS-0146 Table 6 Binary Logistic Regression for the Association of the Indications for Colonoscopy with the Selected Colonoscopy Findings among the Respondents (N=196)

	Colonoscopy Findings					
	Normal Colon		Non-Specific Colitis		Colonic Polyp	
	OR	p-value	OR	p-value	OR	p-value
Hematochezia	-4.47 [†]	0.002	1.42	0.323	9.23 [†]	0.003
Constipation	2.56	0.413	-1.48	0.669	1.00	-
Melena	-4.86*	0.032	-9.62*	0.034	-1.51	0.609
Diarrhea	1.10	0.927	4.36	0.067	1.00	-
Abdominal Pain	3.76	0.066	-1.40	0.577	1.00	-
Weight Loss	1.00	-	1.00	-	1.00	-
Occult Bleeding	1.00	-	1.00	-	1.00	-
Surveillance	1.00	-	1.00	-	1.00	-
	Inflammatory Bowel Disease		Crohn's Disease		Ulcerative Colitis	
	OR	p-value	OR	p-value	OR	p-value
Hematochezia	1.29	0.818	-3.97	0.333	-1.31	0.818
Constipation	1.00	-	1.00	-	15.67*	0.029
Melena	1.00	-	1.00	-	1.00	-
Diarrhea	1.00	-	1.00	-	1.00	-
Abdominal Pain	3.25	0.300	1.00	-	1.00	-
Weight Loss	1.00	-	1.00	-	1.00	-
Occult Bleeding	1.00	-	1.00	-	1.00	-
Surveillance	1.00	-	1.00	-	1.00	-

*Significant at 0.05
[†]Significant at 0.01

considered in a young child presenting with hematochezia. Chronic constipation should warrant investigation for IBD as the incidence of this disease is rising. A prospective multi-center study is recommended to identify the true burden of pediatric colonic diseases, especially in IBD.

IDDF2021-ABS-0147 **FECAL CALPROTECTIN IS SPECIFIC IN PREDICTING ORGANIC BOWEL DISEASES**

Liqiaona Fan*, Muzhou Han, Siying Zhu, Shutian Zhang, Haiyun Shi. *Department of Gastroenterology, Beijing Friendship Hospital, Capital Medical University, China*

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Background Although colonoscopy remains the gold standard for determining bowel diseases, it's an invasive test, which is not suitable for the initial screening for organic bowel diseases. We aimed to investigate the value of fecal calprotectin (FC) for the differentiation of organic bowel diseases and functional bowel disorders.

Methods In this prospective study, patients were included if they underwent colonoscopy for any symptom of the lower digestive tract or colorectal cancer (CRC) screening. Stool samples for FC measurement were collected within 3 days before the colonoscopy. Predictive parameters of FC in discriminating organic bowel diseases (CRC, advanced adenoma and bowel inflammation) were evaluated.

Results Of 192 patients included, 51% were men, median age was 57(interquartile range, 42-65) years old. 103 patients had organic bowel diseases (CRC, n=37; advanced

adenoma, n=32; bowel inflammation, n=34). FC had an area under the curve of 0.750 (95% confidence interval 0.683-0.810, $p < 0.001$) for determining organic bowel diseases. FC level $>100\mu\text{g/g}$ predicted organic bowel diseases with a sensitivity, specificity, positive predictive value and negative predictive value of 62.14%, 80.90%, 79.01% and 64.86%, respectively.

Conclusions FC has high specificity in predicting organic bowel diseases. Colonoscopy should be performed in patients with a high level of FC.

IDDF2021-ABS-0148 **GUIDED RELEASE OF A BREATH (GRAB) – BRINGING UREA BREATH TEST (UBT) TO THE DOORSTEP**

¹Low Yue Wey*, ²Siah Tien Ho Kewin, ²Margaret Teng, ²Phyllis Chin, ²Dai Jiawen, ²Yu Sen Alex Soh, ²Jonathan Lee. ¹Yong Loo Lin School of Medicine, Singapore; ²Division of Gastroenterology and Hepatology, Department of Medicine, National University Hospital, Singapore

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Background Urea Breath Tests (UBTs) are common non-invasive tests performed in hospitals under the guidance of trained technicians. However, COVID-19 has reduced access to within-hospital UBTs. Self-conducted UBT (SUBT) at home has been suggested as an alternative. This study aims to compare the efficacy of SUBT with written compared to video instructions.

Methods The study was divided into 3 parts. In Part 1, consecutive first-time UBT patients were randomized to receive either written or video instructions. In Part 2, the original video was enhanced. For Parts 1 and 2, a competency score of 1-5 based on the assessment of the 5 key steps was determined by a trained observer. Having reviewed the steps for breath collection in the first 2 parts, we went on to Part 3 to determine if breath collection with these steps would be successful. A further enhanced instructional video was created and successful collection of breath was recorded based on detection of sufficient recovered C-13 in the breath bag for the baseline test.

Results In total, 129 patients were recruited for the study. Patients excluded for this study included those who had visual or hearing impairment, cognitive impairment and those who did not understand English as our instructional materials were in English. For Part 1, 20 patients were randomised into written (n=10) and original video (n=10) groups. There was numerical improvement but no statistically significant difference in median scores for written and video instructions (2 vs 4, $p=0.055$). A further 10 patients were recruited for Part 2, the enhanced video group. Median scores were statistically improved for enhanced video compared to written (5 vs 2, $p=0.043$). In Part 3, 99 patients were recruited. Barring machine fault, all the UBTs were successful without repeating the breath test.

Conclusions An enhanced instructional video is highly successful at enabling SUBT. This can improve the safety of patients and operators by allowing UBTs to be conducted at home, while maintaining accuracy. This would reduce the time that patients spend in the hospital and reduce exposure to potential COVID infections.