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Abstract Issue

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clones derived from a *Bacteroides*-related strain, we identified 2 loci involved in the NF-κB stimulatory effect. Another clone, derived from a Firmicutes, was selected for its stimulation of NF-κB, AP1 and TSLP reporter systems. It also stimulated IL-8 expression and secretion. Biochemical characterization indicated that a small heat resistant compound was secreted and transposon mutagenesis in an ABC transporter system abolished this effect. In a co-culture system, this clone indirectly activated dendritic cells through IEC stimulation and further modulated T cell activity. Furthermore, in a new ex-vivo set up of human organ culture (Tsilingiri *et al.* Gut, 2012), it protected the intestinal mucosa from the destructive effect of a *Salmonella* strain. Finally, this clone displayed a protective effect in a preventive set up DSS colitis model.
CONCLUSION: Our Functional Metagenomic approach allowed the identification of new bacterial genes involved in the cross-talk with gut epithelium.
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Disclosure of Interest: None Declared
Keywords: inflamatory pathways, metagenomic, microbial findings, Microbiota, NF-kappaB

MONDAY, OCTOBER 14, 2013 14:00-15:30
Aids to improving endoscopic practice – Salon 11/12

OP104 TABLET COMPUTER BASED MULTIMEDIA ENHANCED MEDICAL TRAINING IMPROVES PERFORMANCE IN BOARD EXAMS COMPARED WITH TRADITIONAL MEDICAL EDUCATION – RESULTS FROM A PROSPECTIVE, RANDOMIZED, CONTROLLED TRIAL

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INTRODUCTION: Traditional teaching concepts in medical education do not take full advantage of information technology, despite the fact that modern gastroenterology and endoscopy are packed with digital media resources. Although the use of mobile communication devices by health care professionals has dramatically increased, scientific data on their impact on endoscopy education and training is very limited.
AIMS&METHODS: Eighty participants were recruited, phenotyped and randomized to either the tablet or controls groups, respectively. The test group could take advantage of their tablet computer based resources (i.e. eBooks, eJournals, digital animations and videos, access to online course management system (Moodle), educational software programs and podcasts from leading medical publishers including the AGA Institute, ASGE and ACP), while the control group had access to all conventional resources (i.e. library, books, journals) for the entire duration their four month rotation. Their performance was statistically analyzed and compared by administration of random generator selected, thematically equally distributed questions from the Gastrointestinal Endoscopy Self-Assessment Program GESAP® (n=200) at the beginning and the end of their rotation. The potential impact of confounding variables on test scores and correlation between self-rated and objectively assessed knowledge was investigated.
RESULTS: Data of 55 participants (female n= 35; tablet n=24, controls, n=31, median age 28 years) were evaluable. At the beginning and the end oft hier rotation the following median GESAP® scores were recorded: tablet group (38.10 vs. 52.25) control group (38.1020 vs. 35.64). The Wilcoxon signed rank test demonstrated a highly significant score difference median (positive delta) for the tablet (Δ 12.85; $p = 0.0001$, CI 95%) but not the control group (Δ -1.13; $p = 0.146$, CI 95%).
CONCLUSION: Tablet based multimedia enhanced training is a promising concept for gastroenterology trainming programs.
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2. Arch Intern Med. 2011 Jul 25;171(14):1294-6
3. http://www.danielbaumgart.de
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Disclosure of Interest: None Declared
Keywords: computer, education, endoscopy, exam, tablet, training

OP105 OPTIMIZATION OF UPPER GASTROINTESTINAL ENDOSCOPY: VALUE OF REAL-TIME GASTRIC JUICE ANALYSIS

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INTRODUCTION: Conventional EGDS cannot identify microscopic lesions.
AIMS&METHODS: Aim of this study was to determine the diagnostic contribution of a novel and automated method for real-time gastric juice analysis during EGDS. Endoscopy, histology and real-time gastric juice analysis (pH, ammonium) were performed in 216 patients. We assessed the following diagnostic strategies: EGDS alone (strategy 1), EGDS with two antral biopsies [hematoxylin-eosin (H-E) staining] in hypochlorhydric patients (strategy 2) or all patients (strategy 3), EGDS with two antral and two fundic biopsies (H-E staining) in hypochlorhydric patients (strategy 4) or all patients (strategy 5) and EGDS with two antral and two fundic biopsies (H-E and immunohistochemical staining) in hypochlorhydric patients (strategy 6). We determined how many of the pathological conditions identified by the complete histological evaluation would have been detected by each strategy.
RESULTS: In total, 220 pathological conditions were identified. Hypochlorhydria was strongly correlated ($r = 0.67$; $p < 0.01$) with histological lesions (85% lesions were detected in hypochlorhydric patients) and high ammonium levels, with *Helicobacter pylori* infection ($r = 0.69$; $p < 0.01$). Strategy 1 (EGDS alone) identified 5% conditions, while strategies 3 and 5 (biopsies in all patients) detected 68.6% and 83.2% conditions, respectively. Strategies 2, 4 and 6 (based on gastric juice analysis) yielded detection rates (61.4%, 75.5% and 90.9%, respectively) similar to or better than those of strategies 3 and 5.

Pathological conditions	Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5	Strategy 6
Antral glandular atrophy	4/19 21.1%	11/19 57.9%	19/19 100%	11/19 57.9%	19/19 100%	11/19 57.9%
Oxyntic glandular atrophy	4/25 16%	4/25 16%	4/25 16%	24/25 96%	25/25 100%	24/25 96%
Antral intestinal metaplasia	0/20 0%	15/20 75%	20/20 100%	15/20 75%	20/20 100%	15/20 75%
Oxyntic intestinal metaplasia	0/9 0%	0/9 0%	0/9 0%	9/9 100%	9/9 100%	9/9 100%
Other	3/3 100%	3/3 100%	3/3 100%	3/3 100%	3/3 100%	3/3 100%
Antral G cell hyperplasia	0/17 0%	0/17 0%	0/17 0%	0/17 0%	0/17 0%	15/17 88.2%
ECL cell hyperplasia	0/20 0%	0/20 0%	0/20 0%	0/20 0%	0/20 0%	19/20 95%
Helicobacter pylori colonization	0/107 0%	102/107 95.3%	105/107 98.1%	104/107 97.2%	107/107 100%	104/107 97.2%
Total pathological conditions	11/220 5%	135/220 61.4% °	151/220 68.6% °	166/220 75.5% §	183/220 83.2% #	200/220 90.9% *

CONCLUSION: Real-time gastric juice analysis provided information about the presence of gastric lesions in an otherwise ''normal'' stomach at EGDS. It improved the diagnostic yield and optimized resource utilization without any additional effort by the endoscopist.
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Disclosure of Interest: A. Ummarino: None Declared, F. A. Tucci: None Declared, G. Pezzicoli: None Declared, D. Parigino: None Declared, A. P. Di Virgilio: None Declared, P. Tucci: None Declared, M. Rugge: None Declared, A. Tucci Other: He is the inventor and patent owner of the Endofaster 21-42, A. Andriulli: None Declared
Keywords: Atrophic gastritis, Endocrine cells hyperplasia, Gastric juice, Helicobacter pylori, Hypochlorhydria, pH-monitoring

OP106 DEVELOPMENT OF A PORCINE MODEL OF EARLY CHRONIC PANCREATITIS FOR EUS EXAMINATION: A PILOT STUDY.

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INTRODUCTION: Endoscopic ultrasonography (EUS) is a well-established and less-invasive modality for chronic pancreatitis (CP) diagnosis. In2009, the Japan Pancreas Society proposed the new diagnostic criteria for early CP. In this criteria, the characteristic imaging for early CP were set as the following EUS features; lobularity, hyperechoic foci without shadowing, stranding, cysts, dilated side branches, and hyperechoic ductal margin. Although several researchers have investigated whether EUS features of definite CP are correlated with histology, it is difficult to assess in early CP due to the difficulty in obtaining pancreatic tissue of early CP for histology in humans.
AIMS&METHODS: The aim of this study is to develop an animal model of early CP for evaluation of the correlation between EUS and histology. Five miniature pigs weight 20kg were used in this study (1 in normal control, 4 in treatment for early CP). For developing an animal model of early CP, a guide wire was passed into the pancreatic duct and a 5-Fr pancreatic stent was introduced over the wire into the pancreatic duct at laparotomy, according to previous report (1). The end of the stent, which protruded the duodenum, was sutured onto the inner wall of the duodenum. The observation period was set at 28 days. EUS examination (GF-UCT260 and GF-UE260, Olympus Medical Systems Corp., Tokyo, Japan) was performed under anesthesia to image the whole pancreas through the gastric wall before and 28 days after the placement of a pancreatic stent, and then followed by euthanasia. The pancreatic sections were taken from the location where was visualized by EUS, and histologically evaluated.
RESULTS: The histopathological examination suggests that the pancreatic duct stent insertion caused pancreatic disorders, as mild to severe acinar atrophy, slight cellular infiltration, and slight fibrosis. At baseline EUS, the pancreas