sera from 117 DH patients, 111 pediatric patients suspected of having CD (52 biopsy positive, 59 biopsy negative), 78 pediatric normal controls and 50 adult healthy blood donors were included in the study. All sera were assessed for IgA against TGE and tissue transglutaminase (tTG) using commercial enzyme immunoassays (EIA, Immunodiagnostik, Bensheim, Germany and INOVA Diagnostics, San Diego, CA, respectively). Results: The sensitivity of TGE IgA as this cohort of DH patients was 52.1% (47% for TGE IgA when using the cut-off of ≥18 AU/mL-positive) recommended by the manufacturer. In contrast, TGE IgA was present in only 2 of the 52 (3.8%) sera from biopsy positive pediatric CD; none of the 52 pediatric CD patients had DH. Lowering the TGE IgA cut-off to ≥12 AU/mL increased the sensitivity to 67.5% (increase of 15.4%) while remaining 100% specific in adult and pediatric controls. This also increased the prevalence of TGE IgA in the pediatric biopsy positive pediatric CD patients to 13.5% (increase of 9.7%). Ninety-five negative pediatric patients produced values below 12 AU/mL. Conclusions: The presence of TGE IgA is significantly higher in DH than in pediatric CD (52% vs 3.8%). The relative prevalence of TGE IgA in pediatric CD is much lower than what has been reported in adult CD. TGE IgA appears to be clinically useful in the diagnosis of DH especially in patients that are IgG IgA negative.

Partial Mesenteric Ischemia Alters Biomagnetic Slow wave
Adam Goodale, Chike B. Obioha, Jon Erickson, Andrei Irimia, Brandon Williams, Leonard A. Brandshaw, William O. Richards

INTRODUCTION: Previous studies have identified a marked decrease in the frequency of the small bowel electrical slow wave (SW) during intestinal ischemia caused by total occlusion of the superior mesenteric artery (SMA). The effects of ischemia are potentially reversible upon reperfusion, depending on the duration of occlusion. The purpose of this study was to determine how partial occlusion of the SMA lumen impacts the biomagnetic slow wave. METHODS: Studies were approved by the Institutional Animal Care and Use Committee at Vanderbilt. We surgically placed a partial occlusion cuff and a flow probe around the proximal 1/3 of the adult pig (N = 10) to monitor the activity of the intestinal slow wave of the lower gastrointestinal tract. Tablet disintegration time and site do not appear to be affected significantly by partial mesenteric ischemia, whereas the ileo-caecal junction was the major target of biomagnetic mapping following small bowel resection and subsequent recovery during intestinal adaptation.

A Novel Non Invasive Genetic Test to Diagnose Hypoplasia in Adult Patients
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Background: Intolerance to lactose due to primary lactose malabsorption is a common problem in humans. Lactose intake might cause diarrhea, abdominal pain, and flatulence and limits consumption of dairy products. The underlying mechanism of production of enzymes metabolizing lactose is genetically regulated. Persistent lactase activity was observed in populations that consumed milk products into adulthood. Several polymorphisms have been associated with persistence of lactase expression. The breath hydrogen test (BHT) is currently used to measure lactose nonabsorption, however false results can occur. Aim: To evaluate the performance of a new non invasive genetic test based on the presence of GT-13910 single nucleotide polymorphism. Participants and Methods: Saliva was collected by spouting in a small plastic box (DNA Genotek Inc., Canada) from white adult Canadians undergoing BHT because of clinical suspicion of lactose malabsorption. A group of healthy subjects, from the same geographic area, was enrolled as control. Genomic DNA was extracted from saliva samples using Oragene DNA Self-Collection Kit. and subjected to polymerase chain reaction (PCR) and sequence analysis for the C/T-13910 single nucleotide polymorphism. Results: 240 subjects;120 cases (mean age 32 years, F/M: 61/59) and 120 controls (mean age 33 years F/M 56/64) were enrolled. The frequency of the C/T-13910 (homozygous genotype for lactase non-persistence) was 89.2%; of the C/T (defining heterozygosity for lactase persistence) was 10.8% and of the T/T (homozygous for lactase persistence) was 0 in the cases. The frequency was of 78.3%, 21.7%, and 0 for C/T, C/T, T/T respectively in the control group. The sensitivity, specificity and accuracy of the BHT compare to the genetic test was 86.1%, 92.3%, 87.5% respectively. The correlation was strong for subjects with no-lactase persistence (3 false positives for BHT) and less strong for subjects with lactase persistence (28 false negatives for BHT). Conclusions: Mutations underlying lactase persistence are very uncommon in Sardinia. The breath hydrogen test is currently used to measure lactose nonabsorption, however false results can occur. Aim: To evaluate the performance of a new non invasive genetic test based on the presence of GT-13910 single nucleotide polymorphism. Participants and Methods: Saliva was collected by spouting in a small plastic box (DNA Genotek Inc., Canada) from white adult Canadians undergoing BHT because of clinical suspicion of lactose malabsorption. A group of healthy subjects, from the same geographic area, was enrolled as control. Genomic DNA was extracted from saliva samples using Oragene DNA Self-Collection Kit. and subjected to polymerase chain reaction (PCR) and sequence analysis for the C/T-13910. Results: 240 subjects;120 cases (mean age 32 years, F/M: 61/59) and 120 controls (mean age 33 years F/M 56/64) were enrolled. The frequency of the C/T-13910 (homozygous genotype for lactase non-persistence) was 89.2%; of the C/T (defining heterozygosity for lactase persistence) was 10.8% and of the T/T (homozygous for lactase persistence) was 0 in the cases. The frequency was of 78.3%, 21.7%, and 0 for C/T, C/T, T/T respectively in the control group. The sensitivity, specificity and accuracy of the BHT compare to the genetic test was 86.1%, 92.3%, 87.5% respectively. The correlation was strong for subjects with no-lactase persistence (3 false positives for BHT) and less strong for subjects with lactase persistence (28 false negatives for BHT). Conclusions: Mutations underlying lactase persistence are very uncommon in Sardinia. Simplicity of genotyping, -13910 T/C to assess the lactase non-persistence should make this method suitable for routine clinical testing in patient with suspected lactose malabsorption.

Eosinophilia Is Overlooked in Routine Duodenal Biopsy Practice and is Linked to a History of Atopy or Medication
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Introduction: Eosinophilia and eosinophil clusters in duodenal biopsies have been shown to be associated with functional disorders (FD) in adults with FD and in adult Swedish population. We aimed to assess the prevalence of eosinophilia in duodenal biopsies and determine associated clinical conditions in adults attending for upper gastrointestinal endoscopy in a UK hospital setting. Methods: 42 patients (mean age 54, range 26-79, 10 men) with duodenal biopsies were selected at random from the histopathology files (2004-6). Controls (n=51) were subjects from a population-based endoscopic study. HFE sections were assessed by two pathologists for eosinophil counts, as the sum of 5 high power fields, (HPF) and the presence of eosinophil clusters (>10 HPF). Biopsies with >18 eosinophils/HPF were scored positive based on the control data. The clinical files were audited for relevant clinical