**SALIVARY PEPSIN DETECTION AS A GASTROESOPHAGEAL REFUX DISEASE MARKER IN A PEDIATRIC POPULATION.** Andrés Bodas1, Ana Garrido1, Julio Peraz de la Serna2, Arantza Rocio1, Raquel Vincio1, Antonio Ruiz de León1. 1Pediatría Gastroenterology, Hospital Clínica San Carlos, Madrid. Madrid, Spain; 2Gastroenterology, Hospital Clínica San Carlos, Madrid. Madrid, Spain

**Background/Objectives:** Current diagnostic methods for gastroesophageal reflux disease (GORD) are invasives. PepsTest allows the detection of salivary pepsin, which is believed to be a GORD marker. The aim is to establish test sensitivity and specificity, predictive value and its validation in a pediatric population.

**Material/Methods:** 18 controls and 18 patients with suspected GORD were studied. Cut-off value for pepsin positivity was 16ug/mL. In addition, patients underwent MII pH monitoring (multichannel intraluminal impedance pH monitoring) and were divided in two groups: normal and abnormal results in MII-pH monitoring. Results of pepsitest and MII-pH monitoring between the two populations were compared.

**Results:** Up to 1/3 of controls had pepsin in saliva at low concentrations. Symptomatic patients had higher pepsin prevalence and concentration than controls (98.7(21.75-144.85)ug/mL). Having at least one positive test had 88.9% sensitivity and 37.2% specificity and increased the likelihood of GORD from 52.9% to 61.53%. Moreover, there was a positive correlation between pepsin concentration and the episodes that reach the proximal esophagus.

**Conclusions:** According with the technique used in this study, pepsitest seems to have good sensitivity, albeit not enough specificity to avoid invasive tests. However, given the fact that pepsitest is related to episodes that reach proximal esophagus, it might be useful in the diagnosis of GORD with atypical symptoms.