

Disagreement on symptom-reflux association analysis parameters in infants

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A research team from Switzerland and Germany assessed the agreement within three commonly used symptom-reflux association analysis (SAA) parameters investigating gastroesophageal reflux disease (GERD) in infants. The three SAA parameters showed an important disagreement, thus putting the diagnostic accuracy of SAA for the diagnosis of GERD into question.

Gastroesophageal reflux (GER), defined as passage of gastric contents into the esophagus is a normal process that occurs in healthy infants, children and adults. When GER causes troublesome symptoms and/or complications it is referred to as [gastroesophageal reflux disease](#) (GERD). During infancy, GER is common and can manifest with specific symptoms as vomiting and non-specific symptoms as irritability and cough. Association of non-specific symptoms with GER is a main problem in the diagnosis of GERD. Timely association of GER episodes and symptom episodes are expressed by symptom-reflux association analysis (SAA) parameters. Abnormal results of SAA parameters point towards GERD. Three SAA parameters are commonly used, symptom index (SI), symptom sensitivity index (SSI) and symptom association probability (SAP). The agreement of these 3 SAA parameters has never been investigated in the infant population.

A research article to be published on May 21, 2010 in the [World Journal of Gastroenterology](#) addresses this question. A research team led by Professor Samuel C Lüthold, investigated infants with suspected GERD presenting with irritability and cough, using combined pH/MII

monitoring.

Evaluating the irritability-GER association, SI, SSI and SAP showed a non-identical classification in almost 40% of infants. Evaluating the cough-GER association SI, SSI and SAP showed a non-identical classification in over 50% of infants. The study showed that the results of SI, SSI and SAP for the diagnosis of GERD often differ. In consequence, the diagnosis of GERD in infants cannot be based on a single SAA parameter as it remains unknown which SAA parameter is the most accurate for the diagnosis of GERD.

The authors suggest that the diagnosis of GERD should be based on a combination of pH/MII-monitoring, SAA results as well as on other factors such as clinical judgment, gastroscopy and follow-up under medical therapy. Validation studies to enhance the accuracy of SAA parameters and to answer the question which SAA parameter is the most accurate are needed.

More information: Lüthold SC, Rochat MK, Bähler P. Disagreement between symptom-reflux association analysis parameters in pediatric gastroesophageal reflux disease investigation. World J Gastroenterol 2010; 16(19): 2401-2406,
www.wjgnet.com/1007-9327/full/v16/i19/2401.htm

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