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**Alleviation of symptoms of uncomplicated gastroesophageal reflux in infants under 12 months old with a functional infant formula based in partially hydrolyzed serum protein thickened with potato starch and with added *Lactobacillus reuteri* DSM 17938, in outpatient paediatric centers of Colombia**

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**Objectives and Study:** Functional gastrointestinal disorders are frequent during first months of life. Regurgitation occurs sporadically in any healthy individual and can occur at any age, but greatest prevalence is at 4 months of age. Between 41%-67% of infants under 6 months of age exhibit more than one regurgitation. These frequent regurgitations, as part of the diagnosis of uncomplicated gastroesophageal reflux, are benign and do not merit testing or therapies for acid suppression. Thickened feedings and antiregurgitation formulas can decrease regurgitation in healthy infants. Thickened feedings are included in the algorithm of non-pharmacological management for infants under 12 months of age with uncomplicated gastroesophageal reflux proposed by the Pediatric Gastroesophageal Reflux Clinical Practice Guidelines (NASPGHAN and ESPGHAN 2018). The objective of this study was to evaluate clinical response of a functional infant formula with partially hydrolyzed serum protein thickened with potato starch and with added *Lactobacillus reuteri* DSM 17938 in patients under 12 months of age. Prospective descriptive non-interventional study.

**Methodology:** We included infants from 0 to 12 months of age with symptoms suggestive of uncomplicated gastroesophageal reflux, excluding infants with organic illness and/or pharmacological treatment. They were enrolled in private medical offices by 71 physicians from different regions of Colombia, from March to July, 2018. Because of their symptomatology, they required management with a specialized formula and doctor prescribed NAN® AR. Their response was assessed by a survey to caregiver at first evaluation and at 30 days after beginning infant formula. Survey was filled out by doctor during consultation. Variables such as sex, age, anthropometric measurements and digestive symptoms were included. Stata was used for analysis. Nominal and ordinal categorical variables were summarized with absolute and relative frequency distributions. The relation between variables was established via Student's T, Fisher exact and chi squared tests.

**Results:** 177 patients, average age was 4.75 months and females (55.1%) predominated. Regurgitation was the principal motive for consultation (89.3%), followed by vomiting (86.4%) and hiccups (54.2%). Indications for infant formula were regurgitation (87.10%) and vomiting (12.1%). 64.4% exhibited symptoms between first and third month of age. The majority of patients (83.5%) exhibited an improvement during first week of use of infant formula. Four weeks after implementing infant formula, 90.7% recorded a decrease of symptoms and statistically significant differences being seen in: regurgitation ( $p=0.029$ ), vomiting ( $p=0.08$ ), pushing ( $p=0.012$ ), fussiness ( $p=0.031$ ) and hiccups ( $p=0.022$ ). There were no significant differences in early satiety ( $p=0.320$ ), sandifer ( $p=0.221$ ), suffocation crises ( $p=0.321$ ) or food rejection ( $p=0.300$ ). Average gain in weight was 836 gr, height 1.65 cm and cephalic perimeter 1.56 cm during time of study. Tolerance of infant formula was adequate in 96.3% of infants.

**Conclusions:** An infant formula with partially hydrolyzed serum protein thickened with potato starch and with added *Lactobacillus reuteri* DSM 17938 was useful for management of infants with uncomplicated gastroesophageal reflux.

Digestive Symptom	Upon admission	After non-pharmacological treatment (4 weeks with NAN® AR formula)	p
Regurgitation	83,9%	15,9%	0,029
Vomiting	78,6%	5,4%	0,008
Pushing	67,9%	2,1%	0,012
Fussiness	62,3%	2,3%	0,031
Hiccups	42,9%	22,9%	0,022
Early satiety	42,9%	8,9%	0,320
Suffocation Crisis	21,4%	2,6%	0,321
Food Rejection	14,3%	1,7%	0,311

*[Digestive symptoms in infants under 12 months of age with a diagnosis of uncomplicated gastroesophageal reflux]*

**Disclosure of Interest:** Daza W is Medical Director of Nestlé Nutrition Colombia