

## EFFECT OF A THICKENED FORMULA SPECIFICALLY DESIGNED FOR PRETERM INFANTS ON GASTROESOPHAGEAL REFLUX

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**Background and aims:** Gastroesophageal reflux (GER) is common in preterm infants. First-line treatment in this population should be conservative (milk thickening and body positioning), due to possible side-effects of the commonly used drugs: nevertheless, at present thickened formula are nutritionally inadequate for preterm infants.

The aim of this study is to test the efficacy of an amylopectin-thickened formula specifically designed for preterm infants on GER by combined impedance and pH monitoring (pH-MII).

**Methods:** Nineteen symptomatic preterm infants (GA < 32 weeks) at full enteral feeding (150 ml/kg/day) underwent a 24-hour pH-MII. During the study period, they received 8 meals: 4 of preterm formula (PF) and 4 of a new amylopectin-thickened preterm formula (TPF). Acid and non-acid GER indexes detected after PF and TPF meals were compared by Wilcoxon Signed Ranks Test.

**Results:** All the infants completed the study period. After TPF meals, a trend to a lower number of acid GER detected by pH monitoring meals was recorded [median 20 (range, 1-42) vs 24 (range, 5-75) after PF meals,  $p = 0.073$ ]; total number of GER was also lower [median 49 (range, 2-84) vs 49 (range, 17-117),  $p = 0.076$ ]. No differences between TPF and PF in non-acid GER indexes were detected.

**Conclusions:** Preliminary results of the present study show that a thickened formula specifically designed to satisfy nutritional needs of preterm infants may improve acid GER in this population, but has no effect on non-acid GER. Further data from a larger population are needed to confirm these results.