



## **Long-term Breastfeeding is associated with less damage in a low-income Juvenile Idiopathic Arthritis cohort**

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### **BACKGROUND**

Juvenile Idiopathic Arthritis (JIA) is the most prevalent cause of chronic arthritis in childhood. It is common belief that both genetic and environmental factors influence JIA prevalence and outcome. Our aim was to determine the influence of breastfeeding duration in JIA activity in a low-income cohort.

### **MATERIALS AND METHODS**

We collected clinical and socio-demographic data from 91 children with JIA followed in two outpatient settings in Fortaleza-CE. JIA activity was assessed using Juvenile Arthritis Disease Activity Score (JADAS27), Childhood Health Assessment Questionnaire (CHAQ), and presence of permanent joint deformities. The protocol was approved by the local ethics committee (72914316.4.3001.5045). Mothers were directly interviewed regarding breastfeeding duration. Data were analyzed using means  $\pm$  S.D or medians, as appropriate, followed by the modeling of minimally adjusted general linear with robust errors estimators (numeric outcome) or logistic (categorical) models (adjusted for age, gender, parental education, family monthly income and parental smoking). Relation between Breastfeeding duration and disease severity was analyzed using Student's "t" test, chi-square and Fisher's exact tests.

### **RESULTS**

Over 90% of JIA patients were ever breastfed. Most mothers felt insecure when asked about exclusive breastfeeding. Thus, we could not consider this information. Breastfeeding for more or less than 3 months did not alter JIA activity. However, those breastfed for more than 6 months had a tendency to lower JADAS27 and CHAQ scores, though not reaching significance,  $p=0.051$  and  $0.056$ , respectively, but had significantly less joint deformities ( $p=0.04$ ).

### **CONCLUSION**

This is the JIA cohort with the highest breastfeeding prevalence ever reported. Breastfeeding over 6 months had a tendency to be associated with milder JIA disease activity.