

# Wheezing infant and allergic sensitization: is this really important?

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## INTRODUCTION

Allergic diseases have increased worldwide.

Two Brazilian studies (PROAL I and II) were carried out in 2004 and 2016 to document allergic sensitization in children and adolescents.

## OBJECTIVE

Evaluate the allergic sensitization profile in wheezing infants of PROAL II using ImmunoCAP (ICAP) and ImmunoCAP ISAC (ISAC) (Thermofisher®) methods and compare them to clinical history.

## METHODS

Retrospective, cross-sectional, multicenter analysis of 470 patients of PROAL II.

Included 39 infants/preschooler children diagnosed with recurrent wheezing, which investigated for allergic sensitization by both methods ICAP and ISAC with recorded clinical data.

## REFERENCES

1. Naspitz CK, et al. Sensibilização a alérgenos inalantes e alimentares em crianças. *J Pediatr (Rio J)*. 2004; 80(3):203-10.
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3. Aranda CS, et al. Increased sensitization to several allergens over 12-year period in Brazilian children. *Pediatr Allergy Immunol*. 2018; 1-3.

*Allergic sensitization in infants was uncommon and not related to severity or prematurity, but ICAP looked more sensitive to evaluate sensitization in this age.*

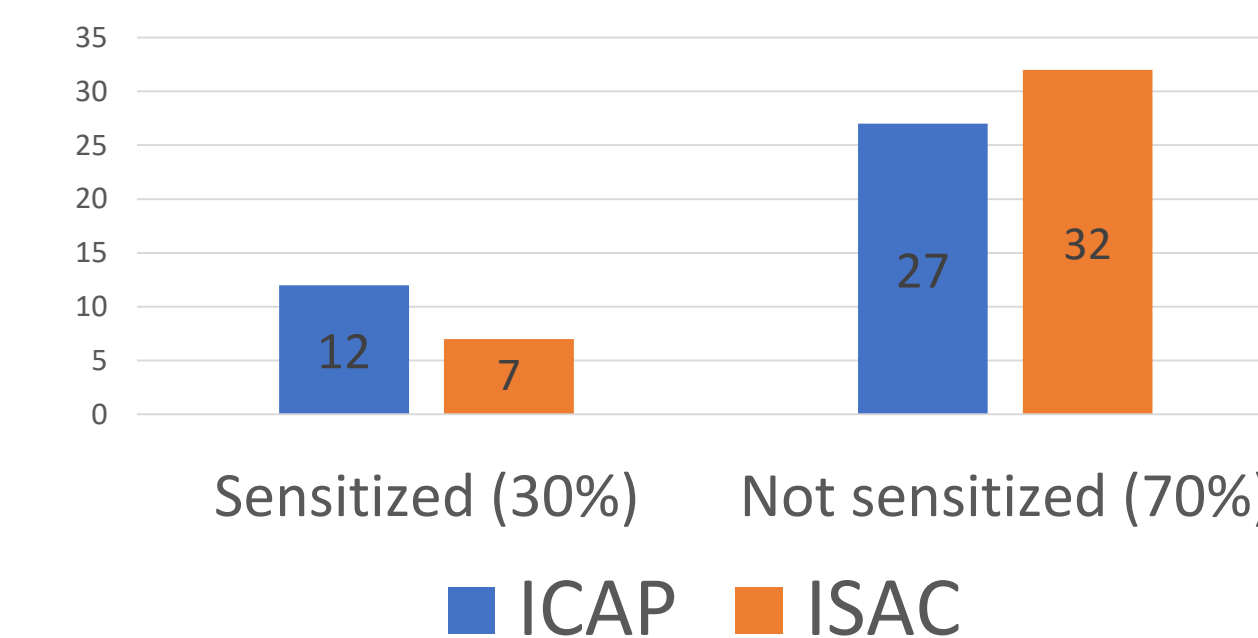
## CONCLUSION

Allergic sensitization in infants was uncommon and not related to severity or prematurity, but ICAP looked more sensitive to evaluate sensitization in this age. As immunoglobulin E concentrations increases with age, the high prevalence of FHA allows us to expect an increasing sensitization over time. More studies are required to understand early allergic sensitization and asthma development.

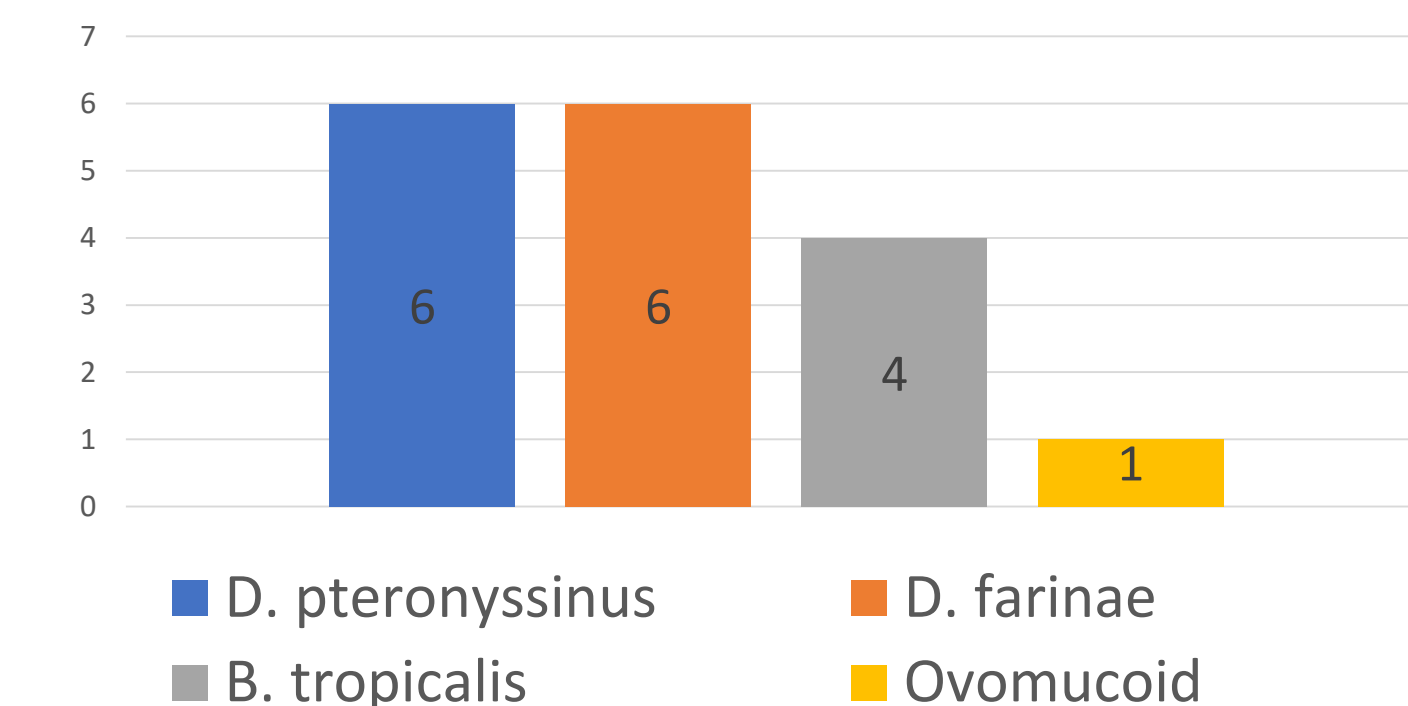
## RESULTS

Total = 39 patients ( 64% male / 36% female)  
Mean age = 11,7 months / Median age = 12 months  
Begin of symptoms = 4 months (mean)

Sensitization in infants by ICAP and ISAC methods

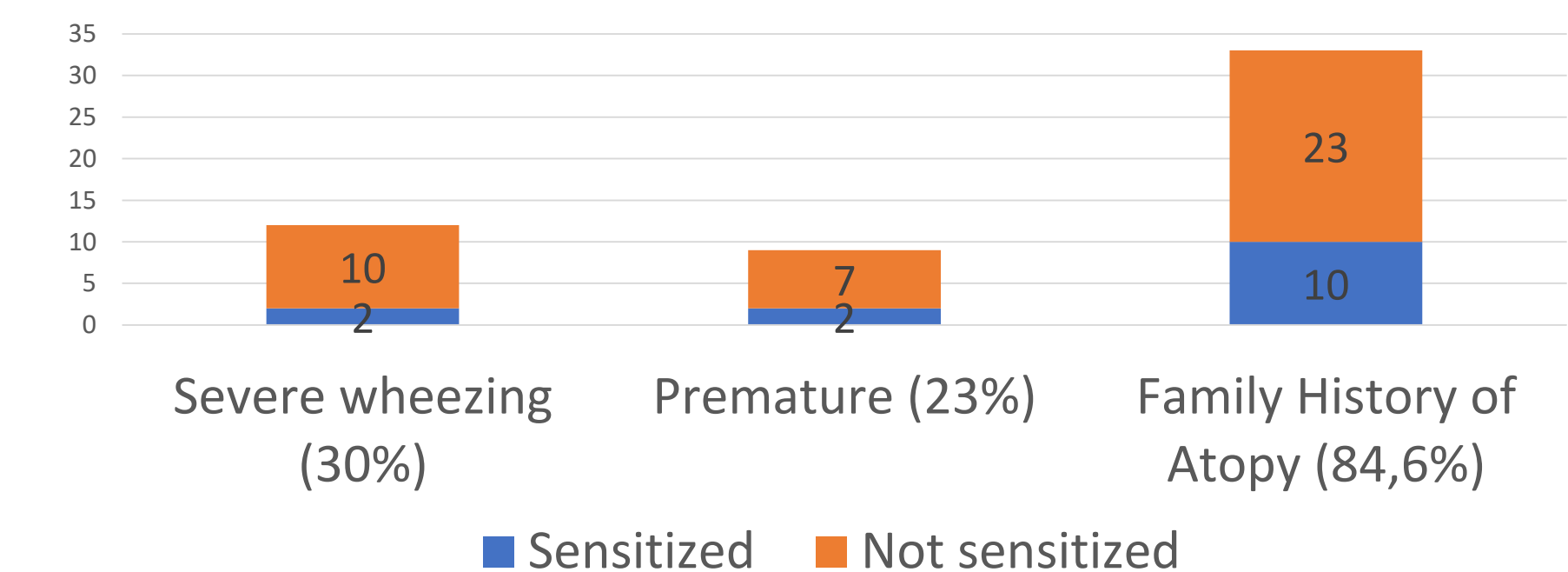


Positive allergens by ISAC method



\* Positive results by ISAC were the same by ICAP

Allergic sensitization in infants versus severity, prematurity and Family History of Atopy



Allergens in sensitized infants	
Severe Wheezing:	Dust mite, shrimp, egg, milk
Premature:	Egg, peanut, milk
Family History of Atopy:	Dust mite, milk, egg, shrimp, peanut