

Attention Deficit Disorder and Allergic Rhinitis – Are They Related?

The benefit of using combination of Cetirizine/Methylphenidate (C/M) in comorbid disease

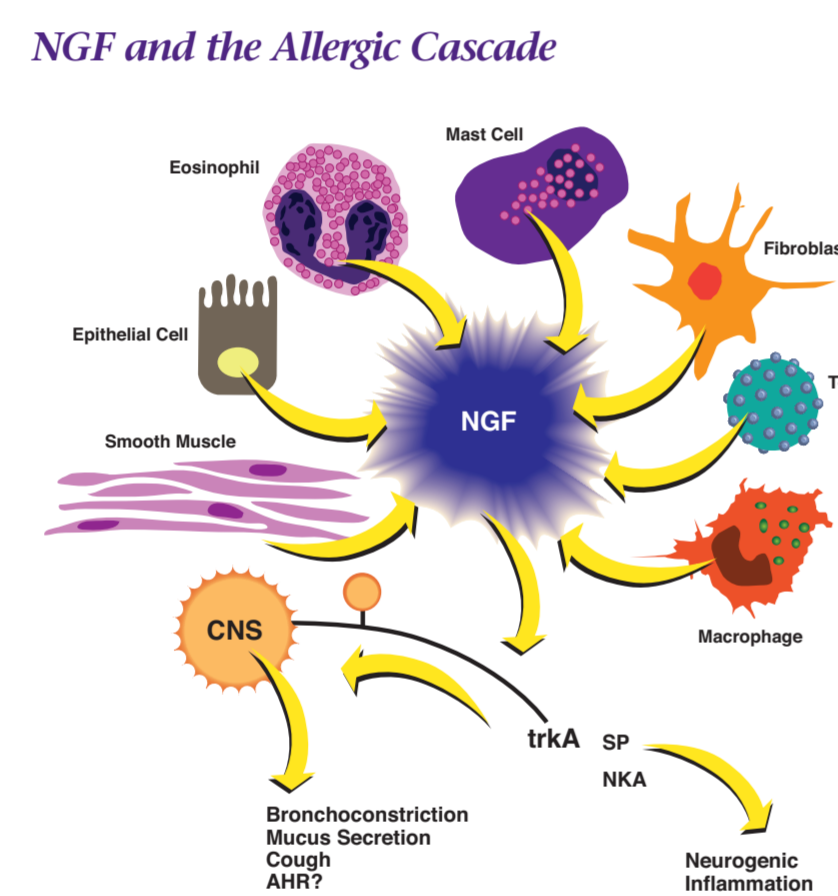
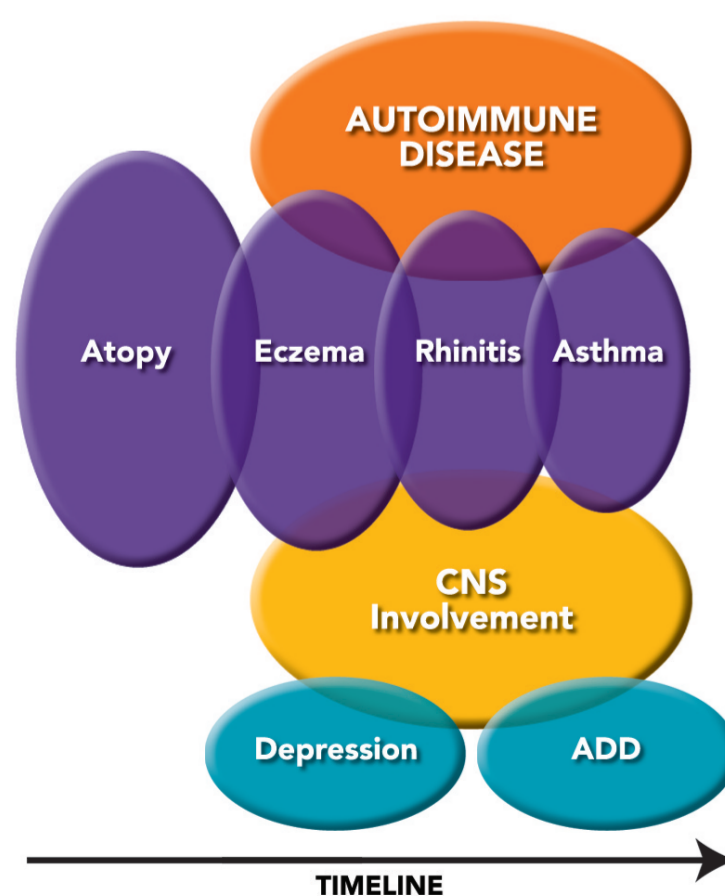
Isaac Melamed, MD



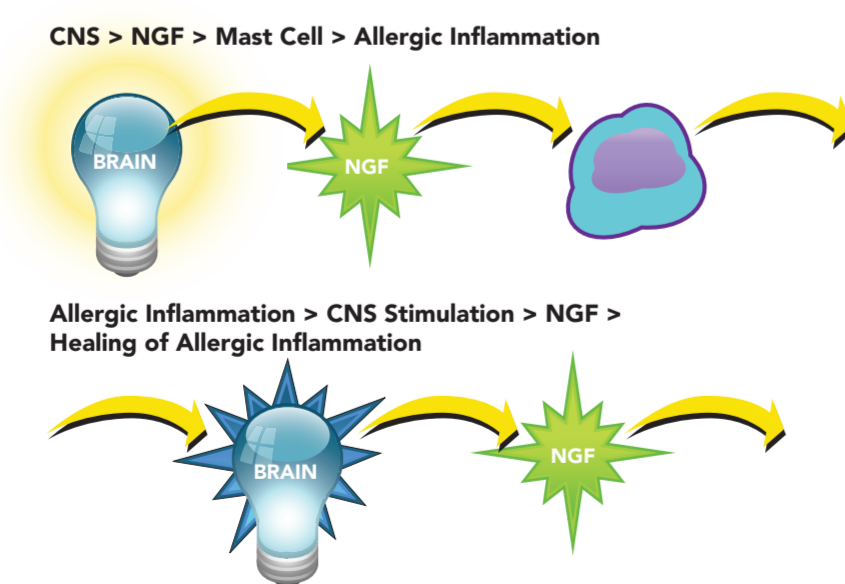
INTRODUCTION

- The association between ADHD and allergy has been often touted, but still controversial.
- Empirical studies suggest that allergies play an etiological role in a small subgroup of children who suffer from attention deficit-hyperactivity disorder (ADHD).
- Children diagnosed with allergic rhinitis have learning and focusing problems (two of the most common symptoms of children with ADHD)
- The clinical overlap between ADHD and allergy is evident.

The Neuro-Immune March The same triggers may lead to neuro-Immune Inflammation



NGF May play a role in the co-morbid disease of ADHD and atopy



OBJECTIVES

- We have preliminary data that autism, ADHD and depression can be part of the disease state of neuroinflammation
- We evaluated a link between ADHD and atopy and the possible benefit of combined therapy of stimulant and antihistamine in a comorbid population

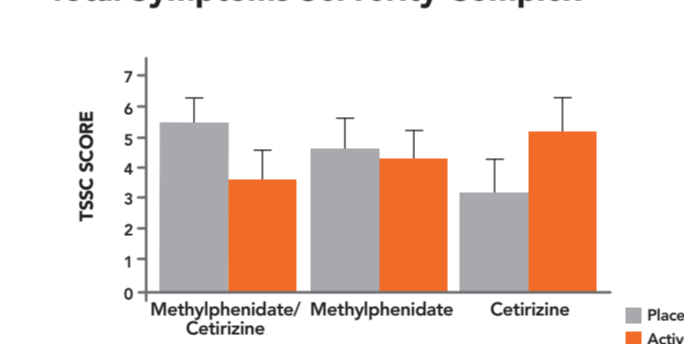
METHOD

- The study was a three arm, double blind placebo controlled, crossover in 41 children, ages 8 – 18 diagnosed with comorbid ADHD and allergy
- Subjects were given cetirizine and/or methylphenidate individually or in combination
- Endpoints evaluated allergic rhinitis and ADHD scores. NGF was measured by ELISA
- Data analysis used paired t- and MANOVA tests

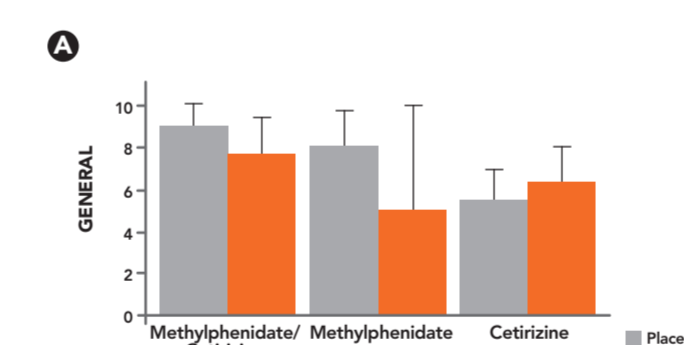
RESULTS

C/M has a better outcome on ADHD scores in the co-morbid subjects of atopy and ADHD

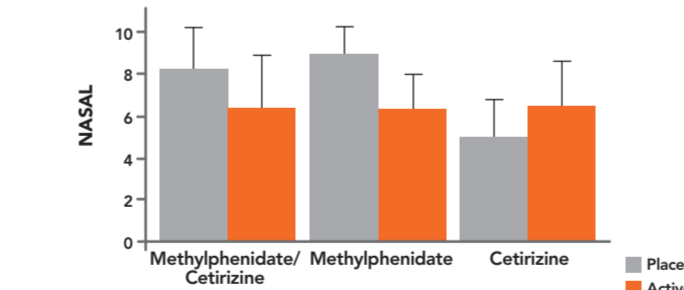
Total Symptoms Severity Complex



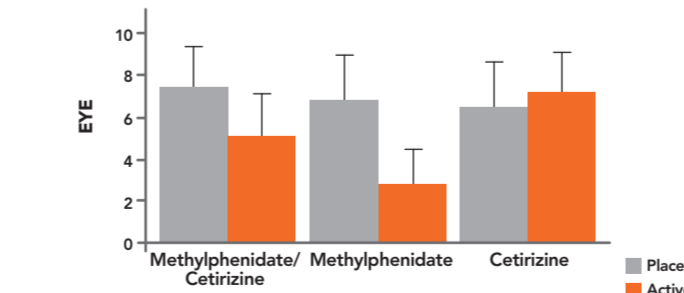
RQLQ Score



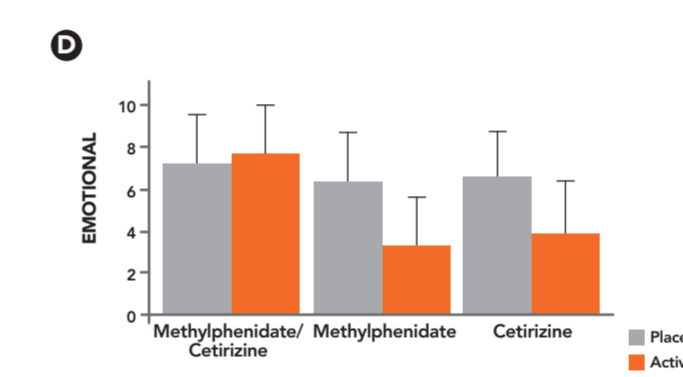
NASAL



EYE

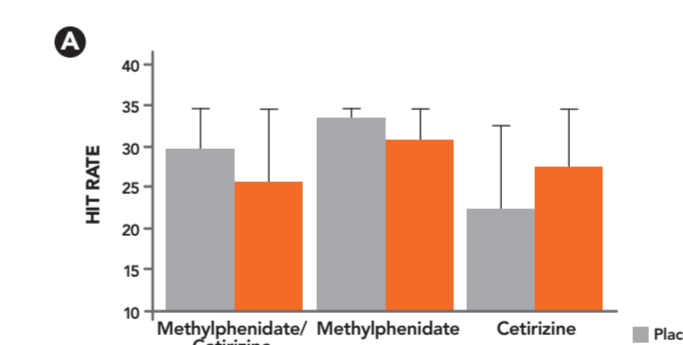


C/M has a better outcome on ADHD scores in the co-morbid subjects of atopy and ADHD

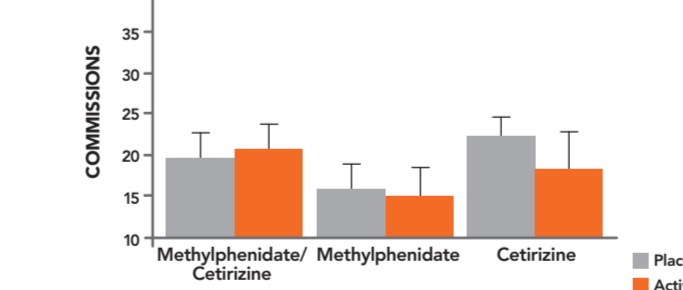


C/M has a better outcome on ADHD scores in the co-morbid subjects of atopy and ADHD

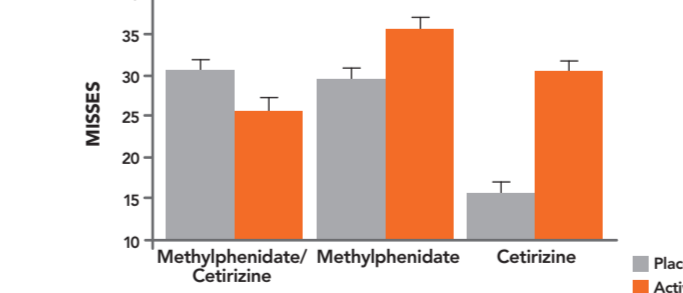
ADHD Endpoints



COMMISSIONS



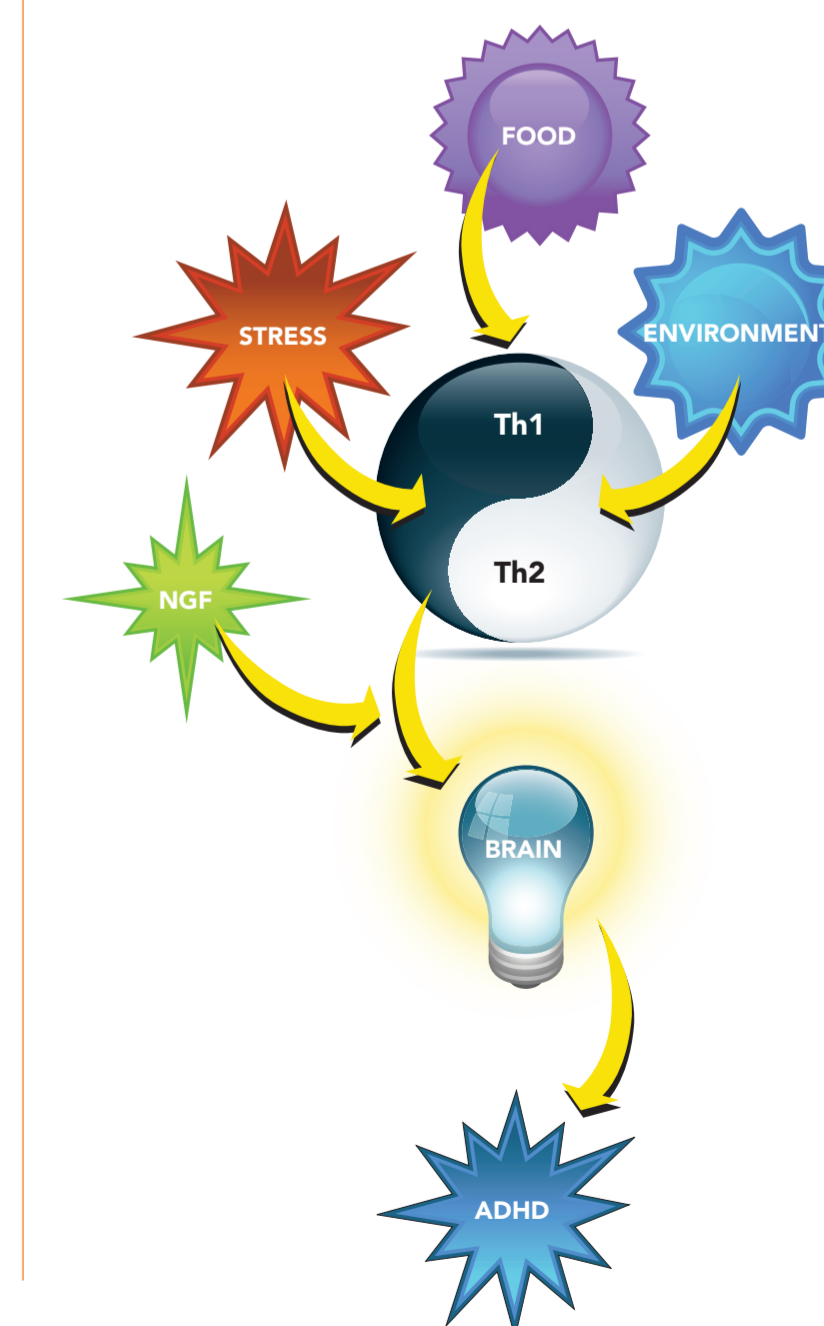
MISSES



CONCLUSIONS

- In ADHD and autism, combination therapy achieves maximum benefit.
- In the present study, NGF followed the same trend and may be used as a biomarker for the severity of either
- The compound used in the present study allows for lower dose and improved clinical management with fewer side-effects

ADHD: The Neuro-immune Connection



C/M regulates NGF production

NGF

