Restricted Elimination diet for Children with Attention-deficit/hyperactivity disorder (ADHD)

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Introduction:
A potential correlation between hyperactivity and food has already been described in the beginning of the last century. The systematic review and meta-analysis of Sonuga-Barke (2013) summarizes all non-pharmacological treatments of ADHD, including the elimination diet. Referring to the INCA study of Pelsser (2011) our study investigates the influence of dietary regimes on symptoms of children suffering ADHD, with the objective of evaluating individual food recommendation as a therapeutic approach in ADHD treatment.

Methods:
The study includes 24 children between 7 and 18 years with the diagnosis of ADHD without stimulant medication and is performed in an ambulatory setting. Our study protocol takes four weeks of strict food elimination, followed by a food reintroduction phase with personal food recommendations. The children's behavior is assessed with the ADHD-Rating-Scale (parent report inventory). Responders with a change of behavior of at least 40% after the diet continue the study phase.

Results:
14 of 24 patients showed improvement upon dietary treatment with values between 27 – 82% on the ADHD-Rating-Scale. The mean outcome of improvement of Responders is 51%. The follow-up showed a further fall on the ARS upon strict food recommendations.

Conclusion:
Our study suggests, that restricted elimination diet reduces symptoms in children suffering ADHD and that individual food recommendations should be a valid therapeutic approach.