



ABSTRACT

Poster Presentation

“Role of M-B₁₂ Injections in children with Autism Spectrum Disorders (ASD)”

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Current research now explains Autism Spectrum Disorders (ASD) as an ecological and gastrointestinal disorder. It is a systemic ailment which originates in the gut that results in simultaneous problems in the central nervous system. Thus, in order to achieve an improvement in autistic traits, the gastrointestinal issues in the child need to be resolved. Biomedical intervention is based on the concept that by addressing these physical issues, it will lead to an improvement in the psychophysical symptoms that are representative of Autism Spectrum Disorder. One of the biomedical interventions includes giving M-B₁₂ injections to the child. These injections target the methylation defects present in children, thus putting them on the spectrum. The discovery of the use of injectable **Methylcobalamin, or methyl-B₁₂ (M-B₁₂)**, by Defeat Autism Now! Practitioner, Dr. James Neubrandner, showed methyl-B₁₂'s profound effect on autism. Since every cell in the body expresses the folate/methionine cycle, defects in transmethylation can affect vital biochemical reactions at many places in the intermediary metabolism. Thus, suggesting that methylation capacity and antioxidant potential can be increased with obvious clinical benefits in ASD children (Evans, 2008; McCandless, 2005). As of now Methyl-B₁₂ injections are being used as a treatment modality for defects in transmethylation in children with ASD all over the United States (not approved by FDA) and in many other countries as well, as it attacks the methylation defects, which in turn results in reducing the autistic features present in the child. As per Dr Neubrandner's protocol, the dose for approximately 85% children is 64.5 mcg/kg every three days. The stock concentration is 25 mg/ml (available in USA). The injection is usually given in the subcutaneous tissue, like in the fat of the buttocks. Usually tests for B₁₂ levels are not carried out before starting the shots as there is no actual reliable test to do so. Changes can be noticed sometimes within 2-4 weeks of administration of M-B₁₂, whereas in other cases it can take more than 3 months for some children to respond with M-B₁₂. The benefits of M-B₁₂ is a slow and steady process that needs to continue over a long time of about 18-24 months. If the shots are stopped in advance, there can be some form of regression also. **Over the last 6 months after parental consent, three children with ASD visiting regularly our centre (CCAW) were introduced to M-B₁₂ injections by following Dr. Neubrandner's protocol (www.drneubrandner.com).** Before we started to administer the M-B₁₂ injections, it was important that no changes were made to any other variables in the treatment plan; otherwise it would have been difficult to ascertain its effects. Also, the ongoing therapies were kept in place. The clinical responsiveness was carefully evaluated by both the parents at home and by the clinician, by using checklists like Autism Treatment Evaluation Checklist (ATEC) and clinical evaluation. Significant improvement was noted in eye contact, speech,

communication skills, and sensory and cognitive awareness. To the best of our knowledge, ours is the first documented open trial using M-B₁₂ injections on Indian children. These MB12 injections are been provided by Akhil Autism Foundation from Hopewell Pharmacy with the help of Dr Karima Hirani.

Therefore, while formal tests and randomized trials are still in the early stages, parents can try this **promising vitamin M-B₁₂ therapy for** defects in transmethylation in **children with ASD** under their doctor's close supervision and guidance.