Successful Ayurveda Management of Complication due to Fragile X Syndrome: A Case Study

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Fragile X syndrome is a genetic disorder characterized by behavior patterns similar to Attention-Deficit/Hyperactivity Disorder (ADHD) and autistic behaviors. Fragile X syndrome is caused by a triplet expansion that inhibits expression of the Fragile X Messenger Ribonucleoprotein 1 (FMR1) gene. It is the most frequent form of inherited intellectual disability and is also associated with various neurological and psychiatric disorders. A pre-diagnosed 07-year-old boy with Fragile X syndrome sought Ayurveda treatment at the Pediatric Unit of the Ayurveda National Hospital. He presented with complaints of poor attention, delayed and limited speech, stereotypic social behaviours and hyperactivity. The aim of this study was to evaluate the efficacy of Ayurveda treatment protocol in mitigating signs and symptoms of Fragile X syndrome. According to Ayurveda, this condition was diagnosed as Balaka Vata Pradhana Mano Vyadhi. The treatment focused on regulating Tridosha, particularly Vata Dosha to alleviate the associated symptoms. The treatment protocol lasted seven weeks and included both Anthahparimarjana Chikithsa, and Bahihparimarjana chikithsa. In the first week, Anthahparimarjana Chikithsa included Trikatukadi decoction (¹/₂ Patha), Chandra kalka (1.25g) with Mahadalu Anupana, administered twice daily. Sarasthwata Choornaya (1.25g) with bee honey was given in the morning while Vachadi Choornaya (1.25g) with bee honey was administered at night, along with the Kola Daunda Vatee in the morning. During the 2nd week, only the decoction was changed. External treatement included Sheersha Abhyanga with Divyanganadi oil and Hastha, Pada Abhyanga with Nirgunyadi oil. Narayana oil was applied to the lower back, B/L knees and ankle joints. After the treatment, the child exihibited significant improvement in speech, behavior, memory, study performance, and the strength and tone of bilateral calf muscles. Fragile X syndrome is a Sahajabala Pravirti *Roga* in Ayurveda, and while it may not be completely curable, this treatement protocol proved beneficial in improving the patient's quality of life. Additionally, it has the potential to reduce the economic burden associated with managing this condition.

Keywords: Fragile X Syndrome, Genetic Disorder, ADHD, Autism, Vata Vyadhi