

## Multimodal Dietary Treatment in Tourettes Syndrome

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Tourette's syndrome (TS) is a common neurodevelopmental disorder that starts in childhood and is characterized by multiple motor and vocal tics. Current evidence has shown that these behaviors are influenced by the brain neurotransmitters. Although dietary treatments are generally not used in the treatment of TS, the current study was undertaken to determine if specific dietary interventions that may alter the level of brain neurotransmitters might improve tics. A multimodal dietary approach of a whole food diet with dietary supplements (neurotransmitters precursors) along with a 3-week detoxification program was assessed on the severity of tics for a period of 8 weeks. The subject was a 15-year old girl who had developed motor tics at age 9. At baseline her YGTSS tic severity scale (TTS) score was 14 and the total score was 34, indicating multiple discrete tics (>5). After 8 weeks of the intervention, her scores had lowered by 36% for TTS and total score of YGTSS by 44% (TTS=9, total score=19) indicating a marked improvement in motor tic intensity rating (75% improvement) and interference rating (66 % improvement) comparison to baseline. The subject also reported a substantial feeling of increased energy and mental sharpness during the study. Thus, the results of this study showed improvement in tic severity, as assessed by clinical rating scales, attention and focusing. Furthermore, the interventions were well tolerated and could be properly followed by sufficiently motivated subjects and families. This result is encouraging evidence that less psychotic medications could be used in these TS children to control motor and vocal tics. Further study on this multimodal dietary approach using decreased levels of antipsychotic medications for TS is warranted.