

Autism and Language Delay, Integration of SOT Cranial Therapy, and Tomatis Auditory Therapy to Stimulate the Auditory Cortex: A Case Report

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INTRODUCTION

Autism is a brain development disorder that impairs social interaction and communication, and causes restricted and repetitive behaviour, all starting before a child is three years old. Most recent reviews estimate prevalence of one to two cases per 1,000 people for autism, and about six per 1,000 for ASD, with ASD averaging a 4.3:1 male-to-female ratio. The number of people known to have autism has increased dramatically since the 1980s, at least partly due to changes in diagnostic practice; the question of whether actual prevalence has increased is unresolved. Autism is highly heritable, although the genetics of autism are complex and it is generally unclear which genes are responsible. However there are also non-hereditary possible etiologies or triggers that affect ASD presentations. Spontaneous structural events associated with ASD onset are also believed to be primarily deletions of a gene, leaving the individual with only one copy of a particular gene leading to disruption of that gene's function and ASD. ASD has multifactorial presentations with one type involving language delay that obviously would affect social interaction and communication ¹.

CASE REPORT

Assessment: 19-year-old female diagnosed with autism spectrum disorder (ASD) characterized by pervasive language delay, presented for cranial treatment at Atlantis (Tomatis) Clinic, St Truiden, Belgium. The patient was unable to speak prior to 11 years of age at which time she had a series Tomatis Auditory Therapy (TAT) treatments ². By age 19 she could speak coherently when her head would be in flexion with her eyes looking downward. With her head and eyes directed forward she was unable to speak in a coherent manner. Treatment/Intervention: Treatment consisted of sacro occipital techniques (SOT) and cranial care ³, specifically treatment for sacroiliac joint hypermobility syndrome (category two) ⁴ and for a significant craniomandibular dysfunction (CMD) ⁵. Typical blocking treatment was used for the pelvic component and the CMD was treated with cranial therapies including SOT related intraoral temporal and sphenomaxillary procedures.

RESULTS

Immediately following care the patient stood up, held her head up and looked straight in the eyes of the doctor and said clearly, "Thank you very much, goodbye." The patient's ability to speak with the head and eyes in an upright position maintained for approximately 7 days, however due to her significant CMD, it appeared she would need concurrent dental orthopedic/orthodontic cotreatment to maintain a lasting positive outcome.



DISCUSSION

Along with chiropractic SOT and cranial care, two main therapeutic interventions for autism spectrum language delay could be TAT and specific vestibular training exercises. Autism spectrum children commonly have hypersensitivity to touch, sound, and visual input. TAT has been found to improve the life of many autistic people by attenuating ASD symptoms. By stimulating the auditory system, and ultimately the brain, TAT, commonly used with other integrative therapies, has been able to help reduce the ASD symptoms. In this case study both chiropractic care and TAT were needed together to facilitate the best outcome, however for lasting effects dental interventions appears to be also necessary.

DISCUSSION (CONTINUED)

For ASD patients vestibular training is also essential and one vestibular type training exercise could involve using a "hula hoop" on one arm and while in motion moving the hoop from one arm to the other across the midline and back again, performing this 5-6 times per session, everyday.

CONCLUSION

Current theory on ASD believes that it is unreasonable to assume a "cure" will take place for this condition at this time, but rather acknowledging there are therapeutic interventions that will aid and raise the patient's thresholds to cope and function. Treatments for some children may both have a physical component involving chiropractic or even dental chiropractic cotreatment and a neurological processing component, which can be helped with interventions such as auditory or vestibular training. It is important for future research to determine what subset of children may best respond to chiropractic therapy and neurological type exercises. While the case presented was quite dramatic, it illustrates the need for greater research into the study of interdisciplinary care of ASD and if these types of results can be duplicated in case controlled studies.

REFERENCES

1. Newschaffer CJ, Croen LA, Daniels J, Giarelli E, Grether JK, Levy SE, Mandell DS, Miller LA, Pinto-Martin J, Reaven J, Reynolds AM, Rice CE, Schendel D, Windham GC. **The epidemiology of autism spectrum disorders.** *Annu Rev Public Health.* 2007;28:235-58.
2. Joan M. Neysmith-Roy, **The Tomatis Method with severely autistic boys: Individual case studies of behavioral changes,** *S. Afr. J. Psychology,* 2001, **31** (1).
3. Blum CL, LETTER TO THE EDITOR: **Sacroiliac Dysfunction and SOT - Response to the Nov. JACA Online Focus article on sacroiliac joint dysfunction.** *Journal of the American Chiropractic Association.* Dec 2006: 20-1.
4. Blum CL, Cuthbert S. **Cranial Therapeutic Care: Is There any Evidence?** *Journal of Chiropractic and Osteopathy.* 2006; 14(10).
5. Fink M, Wahling K, Stiesch-Scholz M, Tschemitschek H. **The functional relationship between the craniomandibular system, cervical spine, and the sacroiliac joint: a preliminary investigation.** *Cranio.* 2003 Jul;21(3):202-8.