

Chiropractic Care of a 10-months-old Infant with Grand Mal Seizures using the Gonstead Technique: A Case Report

by Thomas Sherman, D.C.

One day, I was taking care of a thirty-three-year-old, regular patient who was very quiet during the visit. I asked him what was bothering him. He started to tell me about how his 10-month-old daughter had just been diagnosed as having grand mal seizures by the University of Iowa Medical Center in Iowa City. She would be put in phenobarbitol or *Dilantin* and would probably be required to take it for the rest of her life. They told him that she would be unable to participate in normal childhood activities, and as an adult, would not be able to participate in any sports or drive a vehicle. He was very upset and had big tears in his eyes. I told him that possibly, this could be one of the things that I could fix or correct if he would bring her into the office so that I could check her. He was so excited that he brought her in the very next day along with her mother, who was not certain that chiropractic was a good idea.

During the history, the parents were unaware of any history of accidents but stated that the birth was difficult and instruments were used to facilitate the birth. The seizures began six weeks prior to presentation to this office. The initial seizure occurred while the infant was being given a bath in a small tub. Both parents were present. They called 911, and she was taken to the local hospital emergency room. The seizures and convulsions lasted about five minutes. She was choking and had difficulty breathing. An appointment was made with the University of Iowa Medical Center. Two days later, MRIs were taken, but no abnormalities were found. The electroencephalogram showed some brain irregularities. Subsequently, a few petit mal episodes were noted.

Their pediatrician was told to start medication three days after the diagnosis was made. The visit was cancelled due to our office visit.

Examination of this 18 pound, white female was uneventful. She looked normal; her eyes were symmetrical; she would follow movements; and she had normal reflexes. Motion of the cervical spine seemed to be normal with the exception of flexion and extension. These movements seemed restricted, and she resisted them. Instrumentation (*Nervo-Scope*) showed a right *break* of fifteen points at the atlanto-occipital level. Following the spinal analysis and examination, two 8 x 10 cervical spine x-rays were taken with the patient lying down — A-P and lateral views with a focal-film distance of 60 inches. Analysis of the films showed a condyle listing of AS-RS-RP.

After explaining the findings and discussing the chiropractic care that would be done, correction was done with the infant lying supine. The cervical spine was stabilized in the manner that Dr. Gonstead developed many years ago. I have always felt that on a child, your first correction is the best chance to move the vertebra the most with the least resistance. The mother could not watch the adjustment and left the room; my associate and the father remained. I made certain that the line of correction was correct, and I set the occiput easy, firm, and fast — it moved great!

I saw her three times during the first week. During that time, no further attempts at correcting this subluxation were necessary because the symptoms did not re-appear; no *breaks* were found with instrumentation; and movement of the cervical spine felt normal upon palpation. On the fourth visit, the inflammation had returned and was accompanied

by restriction upon motion palpation of the cervical spine, and she acted as if she was experiencing discomfort during the palpation examination.

After three weeks with no further seizures, the father took her to the pediatrician. After looking over her charts, the MD wanted to know what medication she had been put on for her epilepsy. The father informed him that he had taken her to the chiropractor who had fixed her neck, and she had no further seizures. She replied, "Good. That beats taking those terrible drugs for the rest of her life." She also commented that chiropractors are very good with ear infections.

Five years later, the young girl remains seizure-free.

Discussion

In infants and young children, three major types of seizures are noteworthy: febrile seizures, afebrile seizures, and status epilepticus. Febrile seizures are the most common form of seizure in children under age 5 years. (3,5) It is caused by high fever. There is some risk of reoccurrence – one-third have a second seizure of which one-half have three or more (4) – and little risk of subsequent afebrile seizures. (5,6) Afebrile seizures may be partial or generalized. Generalized seizures involve both cerebral hemispheres while partial seizures are focal. Among the sub-categories of generalized seizures is generalized tonic-clonic seizures, formerly known as grand mal seizures. (7) Classically, generalized tonic-clonic or grand mal seizures involve a loss of consciousness, generalized tonic muscle stiffening, and extension of the body due to generalized muscle contraction. Other common features are tongue biting, salivation, frothing at the mouth, and urinary incontinence. Postictal, there is limpness, obtundness, and unresponsiveness. (9) About one-third with absence seizures suffer generalized tonic-clonic seizures. (2) Benign focal epilepsy with "rolandic spikes" is found in 10% or more of patients under age 15 years with seizures and is associated with unusual and unilateral sensations around the mouth, face or one arm and hypersalivation. Speech may be affected. (2) Status epilepticus is recurrent seizures without regaining consciousness. It is an emergency condition.

The typical medical regimen for seizures, in particular for generalized tonic-clonic seizures, is drug therapy. Drugs used have included valproate, lamotrigine, and phenytoin solution (Dilantin) (2), as well as, phenobarbitol and carbamazepine. There are varying opinions on the efficacy of early treatment regimens for childhood tonic-clonic seizures. A 1988 retrospective study showed an increase in seizures in untreated children. A 1992 study using current patients had the opposite results. (12)

There have been several documented chiropractic case reports of childhood seizures. A 2001 chiropractic literature review by Pistolesi cites 17 articles. (10) One case report was written up and submitted by the GCSS research program. In this case, the 21-year-old female who had had tonic-clonic or grand mal seizures since childhood received an adjustment during a seizure episode. The seizure abated after C6 was adjusted. (11).

The mechanism by which the chiropractic adjustments improves the neurologic function, thereby reducing or abating seizures is unknown, although many opinions have been expressed. A common theme is that the adjustment improves afferent impulses to the central nervous system which were aberrant as a result of the vertebral subluxation. (1,8,10,11)

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