

## **Conservative chiropractic management of 13-month old patient with facial palsy: A case report**

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### **Introduction:**

In the general population facial palsy is a complex condition, which currently lacks a consensus on its optimal management in the healthcare arena.<sup>1,2</sup> Pediatric congenital facial paralysis though uncommon may cause multiple problems for the newborn, such as difficulty with nursing and incomplete eye closure. If the paralysis does not resolve, it may affect the child's future speech, expressions of emotion, and mastication.<sup>3</sup> In the pediatric population congenital facial paralysis is generally classified as traumatic or developmental, unilateral or bilateral, and complete or incomplete. Determining the etiology is important because the prognosis and treatment may differ, depending on the underlying causation.<sup>4</sup>

Congenital facial paralysis accounts for 8-14% of all pediatric cases of facial paralysis.<sup>5</sup> The incidence of facial paralysis in live births is 0.8-2.1 per 1000 births, and, of these, 88% are associated with a difficult labor. Of patients with birth trauma, 67-91% are associated with forceps delivery<sup>6-9</sup> with a lower incidence associated with developmental causes. While more recent studies have found a relationship between birth trauma and facial palsy<sup>6-9</sup> an early study suggested that "permanent" congenital facial palsy more likely has an intrauterine causation.<sup>10</sup> In the pediatric population an overall rate of spontaneous complete recovery tends to be approximately 95-98%<sup>9,11,12</sup>, so interventions that might offer some risk, such as corticosteroids<sup>11</sup>, are considered inappropriate.

### **Case Presentation:**

A 13-month-old female child presented to this clinic with facial palsy. According to her mother she had a difficult long birth with an epidural intervention, described the newborn as being "very large," and was born with a right shoulder dystocia. Of interest the parents did not notice her facial distortion until 4-months of age at which time it was seen by a pediatric neurologist who diagnosed the patient with a left-sided facial nerve palsy or paralysis. The parents reported that since birth the child had been very unsettled and a poor sleeper including that she drooled from the left side of her face. The child did not like anyone to touch the back of her head and was always pulling on her own ears since early infancy. Prior to being seen at this office she was being told by other physicians that the condition would resolve on its own, however the parents were concerned because the condition was ongoing for 9 months and appeared stable.

**Methods/Intervention:**

At each office visit the child was assessed and her spine (T4-8) was adjusting as appropriate for her age, which involved very gentle pressures. She was found to have pelvic torsion and altered sacral nutation (sacro occipital technique's [SOT] category one)<sup>13</sup> and this was balanced, if indicated, on each office visit. Her cervical spine was adjusted using SOT's cervical stairstep and her atlas was adjusted using an Arthrostim on gentle mode. Cranial and craniofacial bones were balanced with a focus on temporal bone balancing<sup>14</sup> and lateral temporal bone decompression<sup>15</sup>. Cranial tension patterns were also released using Howat's Cranio Fascial technique from his book "Cranio Fascial Dynamics," by pushing on the left pterygoid using gentle pressure to the hard palate from left to right, ending on right pterygoid process<sup>16</sup>.



## **Results:**

At the first follow up visit the mother and grandmother reported a big change from the first visit with the child's eyes both more open. By the 6<sup>th</sup> visit both parents spoke about great changes seen in daughter', such as not noticing a large crease on her mouth when feeding her with a bottle as well as being more calm generally and relaxed through the day and at night. They reported that the back of her head was no longer sensitive to touch and was more "rounded and even."

Noteworthy functional changes occurred following the first office visit as the parents noticed their child was capable of crawling and walking (not just on her toes, as before) with improved coordination and greater ease. Prior to treatment the child was mainly mumbling but by the 7<sup>th</sup> office visit was starting to speak. At 12<sup>th</sup> visit parents described themselves as "amazed" that their child was now feeding happily and eating much faster than before. She was able to finish her food in 15 minutes and prior to care would take her about an hour to feed, which was frustrating for parents and child. The child also no longer salivated constantly on the left side of her mouth.

Since the family lived in another country they had to cease treatment after 6-weeks, but were very happy with the significant improvements in their child's face and head as well as improvements in function and ability to sleep through the whole night.

## **Discussion:**

This case is of interest since the child was not making progress towards a spontaneous recovery from the perspective of the parents and prior treating physicians. The temporal relationship between the child's presentation and subsequent response to care suggests a compelling relationship between the care rendered and her recovery.

There has not been much written about chiropractic care of facial palsy in the literature with one study discussing the successful treatment of a pediatric patient with an incomplete obstetric palsy of the brachial plexus and facial nerve in a 2-week-old male child, also with plagiocephaly. Over a 4-month period conservative chiropractic care was implemented, which also included cranial manipulative care. The outcome in that case was good with "a gradual reduction in plagiocephaly and improvement in facial symmetry, upper limb posture, and movement."<sup>17</sup>

As with any case study it is difficult to rule out the placebo or ideomotor effect, also it is possible that the pediatric parent's wishful interpretations of the child's progress might be questionable. Since many cases of facial palsy have spontaneous recovery there is the possibility that the child's positive response was a regression to the mean or a natural progression of their condition. What is of interest is that aside from physical changes

[see photograph] of before and after treatment that show some significant improvement in the appearance of the her face esthetics, the parents also reported positive attitude changes almost immediately after treatment associated concurrent physical changes along with less sensitivity to touching her head, less fussiness and crying, and improved sleeping.

### **Conclusion:**

Case reports are helpful to point out clinical encounters warranting further study. While facial palsy in infants are usually self-limiting and recovery is generally expected, in this case there was a latent onset (4-months) and it had sustained itself for 9-months without any change. Since the parents did not want to continue the “watch and wait” approach and yet did not wish to risk interventions with risk, they chose conservative chiropractic and cranial care at this office. Both the physical changes in her appearance as well as clinical changes occurring in close association with the treatments rendered suggest chiropractic cranial treatment of children with facial palsy warrants further study.

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