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CLINICAL EVIDENCE

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

Arthur Tovar and Charles Blum

Abstract: In the general population facial palsy is a complex condition, which currently lacks a consensus on its optimal management in the healthcare arena. A 13-month-old female child presented to this clinic with facial palsy. 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 nine months and appeared stable.

Methods/Intervention: At each office visit the child was assessed and her thoracic and cervical spine was adjusted with very gentle pressures. Treatment to the cranial and craniofacial bones focused on temporal bone balancing/ decompression with cranial tension patterns released using Howat's Cranio Fascial technique.

Results: At the first follow-up visit the parent reported a big change from the initial visit with both of the child's eyes appearing more open. By the sixth visit (3 weeks) the parents no longer noticed a large crease on her mouth when feeding her with a bottle, as well as the child being more calm and relaxed through the day and at night.

Conclusion: While facial palsy in infants is usually self-limiting and recovery is generally expected, in this case it had sustained itself for nine months without any change. Both the physical changes in her appearance as well as clinical changes occurring in close association with the treatments rendered suggest a possible temporal relationship.

Indexing Terms: Congenital facial palsy, chiropractic, sacro-occipital technique.

Introduction

In the general population facial palsy is a complex condition, which currently lacks a consensus on its optimal management in the healthcare arena. (1, 2) Paediatric 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. (3) In the paediatric population congenital facial paralysis is generally classified as traumatic or developmental, unilateral or bilateral, and complete or incomplete. Determining the aetiology is important because the prognosis and treatment may differ, depending on the underlying causation. (4)

> *... this case report demonstrates positive outcomes in both physical appearance and behavioural characteristics of a child under the care of a chiropractor using SOT'*

Congenital facial paralysis accounts for 8-14% of all paediatric cases of facial paralysis. (5) 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 (e.g. many hours, very painful, etc.). Of patients with birth trauma, 67-91% are associated with

forceps delivery (6, 7, 8, 9) with a lower incidence associated with development causes. While more recent studies have found a relationship between birth trauma and facial palsy (6, 7, 8, 9) an early study suggested that 'permanent' congenital facial palsy more likely has an intrauterine causation. (10) In the paediatric population a overall rate of spontaneous complete recovery tends to be approximately 95-98% (9, 11, 12) so interventions that might carry some risk, such as corticosteroids (11) are considered inappropriate.

Case Presentation

A 13-month-old female child presented to this clinic (AT) 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 four months of age, at which time she was seen by a paediatric 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 often pulling on her own ears from 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 nine months and appeared stable.

Methods and intervention

At each of 12 office visits over 6 weeks the child was assessed and her spine (T4-8) was adjusted 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) (13) and this was balanced, if indicated, on each office visit. Her cervical spine was adjusted using SOT's cervical stair-step and her atlas was adjusted using an Arthrostim on gentle mode.

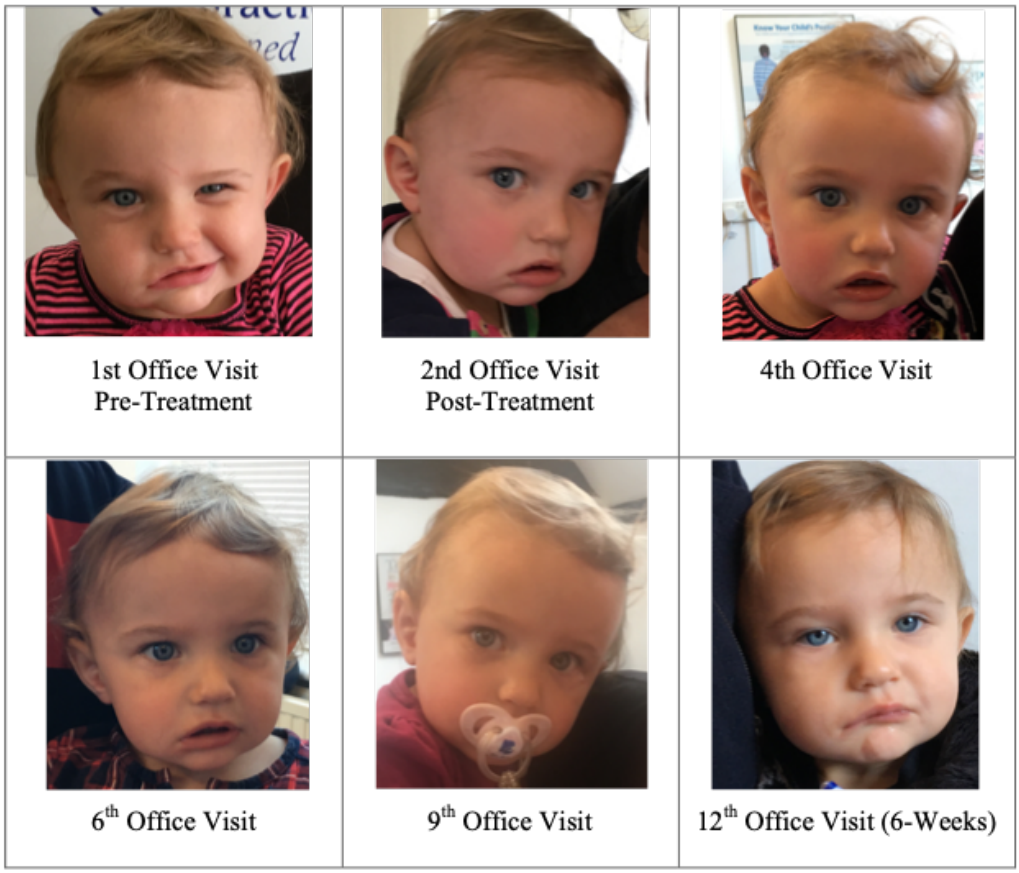
Treatment to the cranial and craniofacial bones had a focus on temporal bone balancing (14) and lateral temporal bone decompression. (15) Cranial tension patterns were also released using Howat's Cranio Fascial technique from his text book '*Cranio Fascial Dynamics*,' (16) by contact on the left palatine bone (posterior aspect of the hard palate) using gentle pressure to the hard palate from left to right, ending on right palatine bone. (16)

Outcomes

At the first follow-up visit the mother and grandmother reported a big change from the initial visit with both of the child's eyes appearing more open. By the sixth visit both parents spoke about great changes seen in their daughter, such as not noticing a large crease on her mouth when feeding her with a bottle, as well as her 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 seventh office visit she was starting to speak. At twelfth 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 it 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.

Figure 1: Changing facial appearance over time



Since the family lived in another country they had to cease treatment after six 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. It is suggestive that the infant cranium is particularly flexible and may be responsive to pressures to the cranium and craniofacial region, which can be used to facilitate internal cranial bone, suture, and internal meningeal/periosteal dural balance.

The literature returns little about chiropractic care of facial palsy, with one study discussing the successful treatment of a paediatric patient with an incomplete obstetric palsy of the brachial plexus and facial nerve in a two-week-old male child also with plagiocephaly. Over a four-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.*' (17)

As with any case study it is difficult to rule out the placebo or ideomotor effect; also it is possible that the paediatric parent's wishful interpretations of the child's progress might be unreliable. 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 her condition.

What is of interest is that aside from physical changes [see photographs] of before and after treatment that show some significant improvement in the appearance of the her face aesthetics,

the parents also reported positive attitude changes and physical changes such as less sensitivity to touching her head, less fussiness and crying, and improved sleeping which began almost immediately after treatment.

Conclusion

Case reports are helpful to point out clinical encounters warranting further study. While facial palsy in infants is usually self-limiting and recovery is generally expected, in this case there was a latent onset (four months) and it had sustained itself for nine months without any change. Since the parents did not want to continue the '*watch and wait*' approach but also did not wish to pursue high-risk interventions, they chose conservative chiropractic and cranial care. Both the physical changes in the patient's 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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Informed consent to chiropractic care, signed by the patient's parent, and parental consent to the publication of this case including the images of the patient, is held by the practitioner.

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