S.O.T. CHIROPRACTIC AND NOCTURNAL ENURESIS IN CHILDREN.

By Dr Rosina Walker

Last year I had a week where three children showed up as new patients with nocturnal enuresis. Thinking this was more than a coincidence, I asked one of the mothers how she had heard about our chiropractic clinic. Apparently I was on a local 'Mums and Babies' site as the chiropractor to go to if your child had bedwetting issues!

After their patient history and physical examinations, I noticed that all three of these children presented with the same postural, muscle, neurological and physiological findings. As an SOT chiropractor (Sacro Occipital Technique), I also noticed that they all had the same Category and Line 2 Fibre findings.

The 7y.o. girl was a twin, who had had an unusual lie in the womb and colic and projectile vomiting that was medicated until 18 months. She also presented with abdominal pain, bowel issues (alternating constipation and diarrhea), eczema and a 'lazy left eye'. She was experiencing psychological stress due to parents going through a divorce.

The 7y.o. boy presented with an overactive bladder during the day and nocturnal enuresis. He had seen a paediatrician four years ago as well as a urologist. He had been medicated since he was 4yo with Oxybutrinin (antispasmodic for bladder) and then one year ago the GP added Desnopression (controls increased thirst) and Imipramine (antidepressant). His kidney and bladder ultrasound was within normal limits (WNL).

The 10y.o. boy was being woken by his parents twice every night to go to the bathroom. He also presented with frontal and suboccipital headaches once or twice a month. His kidney and bladder ultrasound was within WNL.

Nocturnal Enuresis is when bedwetting continues past an age where the bladder is neurologically and physically developed to be able to hold the urine all night.

1. **Primary nocturnal enuresis** is bedwetting in a child who has never been consistently dry at night for a period of six months.
2. **Secondary nocturnal enuresis** is bedwetting in a child who has previously had a period of at least six months of dryness.

Bedwetting affects approximately:

- 15% of 5 year olds
- 5% of 10 year olds
- 2% of 15 year olds
- 1% of adults

Spontaneous remission occurs in about 15% of affected children each year and is more likely to occur if there is a family history of nocturnal enuresis.[1] It is thought that fewer than half of parents with a child with nocturnal enuresis consult their doctor about the problem. The exact cause of nocturnal enuresis is unknown. It appears to be a neurodevelopmental problem that is probably multifactorial.[2]

For a detailed case history of three young patients, scroll down.

[1] Norgaard J, van Gool J, Hjalmas K et al. Standardisation and definitions in lower urinary tract dysfunction in children. International Children's Continence Society. Br J Urol 1998; 81(Suppl 3):1-16.
[2] Butler RJ, Heron J. The prevalence of infrequent bedwetting and nocturnal enuresis in childhood. Scand J Urol Nephrol 2008;42(3): 257-64.
Paediatric Society New Zealand. Best Practice Evidence Based Guideline. Nocturnal Enuresis "Bedwetting". 2005. Available from www.paediatrics.org.nz Accessed May 2008.

Case Study of Three Children with Nocturnal Enuresis

Below is a list of their common physical exam findings:

- Physical exam: Decrease Right Psoas and Left lower core (T.V.A.) muscle strength at 4/5.
- Neurological: All DTRs and Reflexes were WNL.
- Primitive Reflexes: +ve Spinal Galant.
- Posture: Large Right Thoracic translations (see posture pictures below).
- Spinal Subluxations: C2, T11 And T12, L3 and L4, sacrum.
- S.O.T.: Kidney Ptosis.
- S.O.T C.M.R.T. Reflexes: Line #2-T11/12.

Treatment care plans.

We started with a care plan of two visits per week for three weeks, to be followed by a reassessment.

- The three children were all adjusted using SOT Techniques including the Pre-blocking techniques: Kidney ptosis and Psoas correction.
- Spinal subluxations were monitored and adjusted where necessary.
- S.O.T. C.M.R.T. Reflex Lines were monitored and T11/12 reflexes were performed until the Reflex was no longer apparent.
- Advanced C.M.R.T. Reflex Kidney technique was performed where necessary.
- All parents were asked to increase their child's vitamin C intake and cut down the intake of dairy, sugar and wheat.

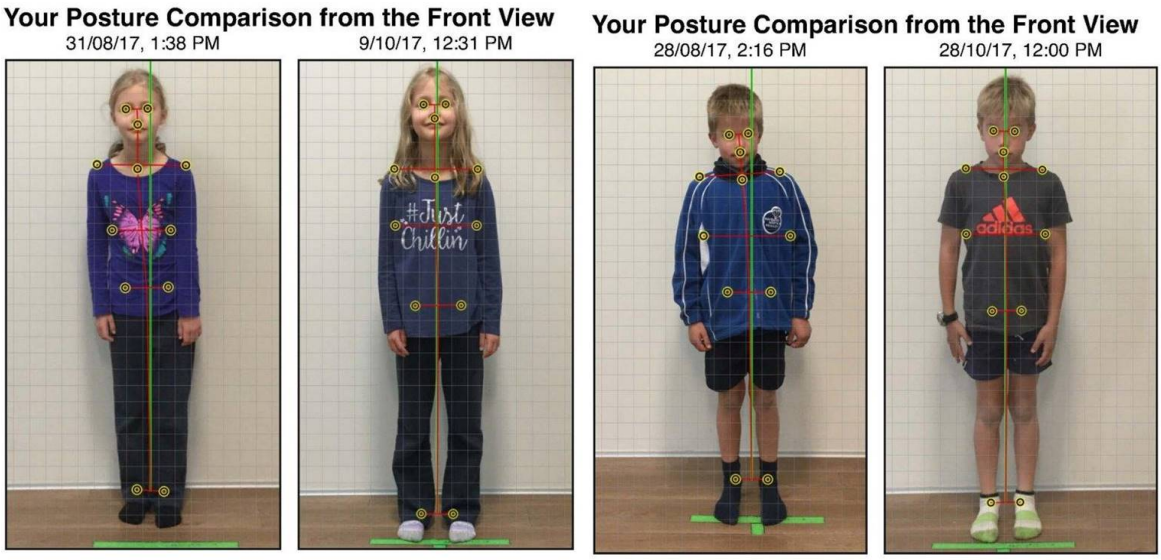
Individually, the children all had their separate care plans with the following elements:

- Stress management, parent/sibling relationships.
- S.O.T. cranial adjustments.
- Aim to reduce medications.

Re-examination results.

For all three children:

- All muscle tests WNL.
- Posture improved (see photos attached).
- Spinal Galant –ve.
- Bedwetting decreased ++.



Discussion

1. **Postural Findings**

The postural changes found relate to the tension in the dural system consistent with a SOT Category 1. This includes pelvic rotation, lateral thoracic translation to the opposite side, and contralateral movement of the cervicals. Category 1 involves the central nervous system function, spinal muscles such as erector spinae and organ function. Organ function affects the sympathetic and parasympathetic nerve system, causing the body to be in an increased sympathetic state, which can increase the kidney function and output. See before and after posture pictures above.

2. Chiropractic Manipulative Reflex Technique (C.M.R.T.)

C.M.R.T. is based on the premise that changes in the cerebrospinal fluid flow (C.S.F.) and contents due to stressors will adversely affect the function of the nervous system and therefore affect the subluxation complex. Because of this, visceral dysfunction will follow, pathological reflexes will be established, and disease will manifest itself in the form of symptoms.[3]

C.M.R.T. normalises somato-visceral and somato-spinal reflex arcs that can help to prevent the 'repeat adjustment' syndrome. C.M.R.T. helps interrupt chronic pain patterns and corrects functional organ disturbances. The finding that indicated the need for C.M.R.T. in these children was a Line 2 Occipital Fibre relating to T11/T12. If a Line 2 fibre stays present (swollen and tender), this indicates that a detrimental viscerosomatic and somatovisceral reflex arc has developed that is beyond the body's natural healing capabilities to repair this subluxation pattern on its own.

Effects of C.M.R.T.

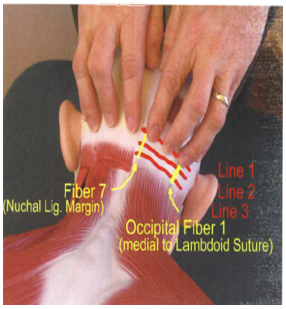
- Stimulates the thalamic tract.
- Reduces neuro-lymphatic flow.
- Increases C.S.F flow.
- Promotes lymphatic drainage.
- Removes nerve stasis.
- Restores visceral impulse.
- Improves circulation and stimulates normal visceral activity.

2. Advanced C.M.R.T. Kidney Technique

We often find kidney ptosis on children with nocturnal enuresis. Kidney ptosis can also be bilateral due to the myofascial tension, and is often present with adults due to increased tone in their hip flexors/psoas muscles. In adults, this can also present as flank pain, or with bladder and kidney infections. Kidney ptosis can also present as headache at the end of the day, and if people are drinking excessive amounts of water but also passing/urinating excessively.

[3] The Basis of C.M.R.T. Chiropractic Manipulative Reflex Technique Seminar Notes, SORSI, (1970's)

SOT advanced kidney technique can be warranted as the kidneys can become severely congested and may contain bacteria and pus cells. In the cases presented, two of the children required this advanced technique to be performed, as they were experiencing either chronic bladder or kidney infections.



Conclusion

Nocturnal enuresis is huge problem for the families involved. There is not only the stigma of bedwetting, but also the social, psychological and physiological issues associated as well. The causes of nocturnal enuresis are many and varied, from physical problems such as a smaller bladder, to emotional issues such as stress and relationships with parents or siblings. With the three children mentioned above, the same physical findings were found in all three cases, and they also all had psychosocial issues.

After their plan of care, including spinal adjustments, plus S.O.T. techniques to reduce the viscero-somatic and somato-visceral responses, their nocturnal enuresis markedly reduced. Following a series of adjustments, all muscle tests, and primitive reflexes were WNL and their posture had improved. Following on from these three cases I have found exactly the same physical findings in further cases in our clinic. I am continuing to gather more evidence and would love to hear from any of you if you have noted similar findings in the children you are seeing in your clinics. I am looking at possibly building this into more of a research case that I can hopefully collaborate on.

If anyone is interested in learning more about S.O.T. (Sacro Occipital Technique), please feel free to contact me as President of SOTO NZ, or look at our Facebook page SOTO NZ.

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References

1. Mikkelsen EJ. Enuresis and encopresis: ten years of progress. J Am Acad Child Adolesc Psychiatry 2001;40(10):1146-58.
2. Butler RJ, Heron J. The prevalence of infrequent bedwetting and nocturnal enuresis in childhood. Scand J Urol Nephrol 2008;42(3): 257-64.
3. Paediatric Society New Zealand. Best Practice Evidence Based Guideline. Nocturnal Enuresis "Bedwetting". 2005. Available from www.paediatrics.org.nz Accessed May 2008.
4. The Basis of C.M.R.T. Chiropractic Manipulative Reflex Technique Seminar Notes, SORSI, (1970s).