

The primary outcome of mean (SD) hospital length of stay (LOS) was 13.8 (8.1) days for the study group and 17.5 (14.5) days for the control group ( $P < .001$ ). Gestational age was associated with LOS ( $P < .001$ ), as was birth weight ( $P = .02$ ). The cost per newborn was €6277.28 for the study group and €7863.29 for the control group, which was a significant difference ( $P < .001$ ).

As a multicenter study, these data are strong and confirm previous findings of the benefit of OMTh in the NICU. This study should be replicated in the United States. (doi:10.7556/jaoa.2016.014)

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## References

1. Pizzolorusso G, Cerritelli F, Barlafante G, et al. Effect of osteopathic manipulative treatment on gastrointestinal function and length of stay of preterm infants: an exploratory study. *Chiropr Man Therap*. 2011;19(1):15. doi:10.1186/2045-709X-19-15.
2. Cerritelli F, Pizzolorusso G, Ciardellie F, et al. Effect of osteopathic manipulative treatment on length of stay in a population of preterm infants: a randomized controlled trial. *BMC Pediatr*. 2013;13:65. doi:10.1186/1471-24313-13-65.
3. Pizzolorusso G, Cerritelli F, Accorsi A, et al. The effect of optimally timed osteopathic manipulative treatment on length of hospital stay in moderately and late preterm infants: results from a RCT. *Evid Based Compl Alternat Med*. 2014;2014:243539. doi:10.1155/2014/243539.

## As the Twig Is Bent, so Grows the Tree—Part 7: Severe Temporal Bone Restriction in Children Is Risk Factor for Acute Otitis Media

Morin C, Dorion D, Moutquin J, Levasseur M. Suture restriction of the temporal bone as a risk factor for acute otitis media in children: cohort study. *BMC Pediatr*. 2012;12:181. doi:10.1186/1471-2431-12-181.

Canadian osteopathic researchers carried out a prospective cohort study of 64 infants (128 ears) aged 6 to 18 months assessing whether temporal bone suture restriction was a risk factor for the development of acute otitis media (AOM).

The children were recruited from community-based recreational organizations. Inclusion criteria were no previous episodes of AOM and exclusion criteria were congenital anomalies like cleft palate or Down syndrome and any hearing problems.

Temporal bone status was assessed by Canadian osteopaths using visual observation to identify obvious displacement between temporal squamous and petrous parts and suture overlapping and manual examination of each temporal bone. Each temporal bone was assessed for mobility of cranial concept for external and internal rotation, and severe restrictions were noted. Interrater reliability was 0.58 for right and 0.71 for left temporal bones. No osteopathic intervention was applied.

The outcome measure was the diagnosis of AOM by a physician. All children who received an AOM diagnosis received standard care. Documentation of AOM was completed by a research assistant using telephone interviews with parents every 2 months. Physicians, parents, and the research assistant were blinded to temporal bone status.

Severe temporal bone restriction was identified in 23 children (35.9%). Of these 23 children, 14 (43.3%) had at least 1 episode of AOM. Twenty-eight (28.3%) of those without severe temporal bone restriction had an episode of AOM. Higher risk of AOM was associated with restricted temporal sutures ( $P < .01$ ), pacifier use ( $P < .01$ ), and younger age ( $P = .001$ ).

Strengths of this study included the population-based longitudinal prospective design, rigor of the documentation of the health status of the children, and occurrence of only 1 subject dropout. The authors acknowledge that because the families recruited for the study knew the nature of the concern for AOM, parents may have sought AOM consultation, which they may not have otherwise done. (doi:10.7556/jaoa.2016.015)

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