Osteopathic Manipulative Treatment and Otitis Media: Does Improving Somatic Dysfunction Improve Clinical Outcomes?

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Objective: To study the relationship between osteopathic manipulative treatment (OMT) of somatic dysfunction and clinical outcomes in children with recurrent acute otitis media (AOM).

Methods: Children aged 6 months to 6 years with recurrent AOM were randomized to receive routine care only versus routine care plus 9 osteopathic manipulative treatments. Over the 6-month study period, clinical status was monitored with chart review by a pediatrician blinded to patient group and study outcomes. Osteopathic physicians blinded to patient clinical course assessed the presence and severity of somatic dysfunction using a standard four-point scale. Outcome measures included episodes of AOM, antibiotic use, and tympanogram scores.

Results: Twenty-five patients were randomized to the treatment group and 32 to the control group (N=57). Treatment and control groups did not differ significantly. Children who received OMT had fewer episodes of otitis media, fewer antibiotic prescriptions, and showed an improvement in their tympanogram score when compared to the control group. For the anatomical regions with somatic dysfunction ≥2.0, anterior and posterior head, upper and middle thorax, the mean somatic dysfunction at baseline did not significantly differ between the two groups (2.27 treatment versus 2.37 control; P=.33). The mean somatic dysfunction at final for the treatment group decreased significantly (1.35) and remained constant for the control group (2.30; P < .001). Linear regression showed a trend between improvement in somatic dysfunction and improvement in average monthly episodes of otitis media and average monthly antibiotic prescriptions (P = NS). Improvement in somatic dysfunction was associated with improvement in tympanogram score (P =.04).

Conclusions: Although further studies with larger sample size are necessary, this research suggests that treatment of somatic dysfunction can improve the function of the tympanic membrane and may improve other clinical outcomes in children with recurrent AOM.

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