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Commentary on "Use of a Midliner Positioning System for Prevention of Dolichocephaly in Preterm Infants"

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CLINICAL BOTTOM LINE

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"How should I apply this information?"

Infants in the study cohort (SC) had a stable cranial index (CI) over time, while the CI of infants in the retrospective study cohort (RSC) decreased. Some aspects of the authors' positioning protocol may interest clinicians who serve this population, including 24-hour/day use of the midliner positioning system (MPS) and increased time spent in the supine position for infants who are more than 32 weeks' postmenstrual age or presenting with dolichocephaly. A protocol for infants with dolichocephaly, with less time in the side-lying position, emphasizes the importance of regular, accurate assessment of head shape for timely intervention. Although nurses did not consistently report that the MPS maintained head position, improved infant tolerance of early supine positioning with the head supported may assist later transition to supine sleeping without positioning aids. Education for nursing staff in implementation of the protocol and support for troubleshooting problems with the MPS highlight the importance of a team approach in the promotion of new programs in the neonatal intensive care unit (NICU).

"What should I be mindful about when applying this information?"

Data on the prevalence and treatment of dolichocephaly are lacking. The sample sizes of the RSC at 33 and 34 weeks were too small (18 and 4, respectively) to provide strong evidence on the effectiveness of the MPS in the prevention of dolichocephaly in preterm infants in the NICU. Despite this limitation, the stability of the CI over time in the SC suggests that the use of the MPS, combined with a 24-hour/day positioning protocol, may be effective in reducing the incidence or severity of dolichocephaly at 34 weeks' postmenstrual age. A 3-group randomized controlled trial comparing a positioning protocol, the MPS, and a combination of both would further clarify the effect of each intervention.

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