Maternal folic acid supplementation and the risk of ankyloglossia (tongue-tie) in infants; a systematic review

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Abstract

Background: Maternal folic acid supplementation is protective against the development of neural tube defects (NTDs) in babies. However, recent public-facing communications have raised concerns about a causal relationship between folic acid supplementation, particularly after the first trimester, and ankyloglossia (tongue-tie) in infants. Non-evidence-based communications are potentially harmful because they could adversely affect adherence to folic acid supplementation, increasing NTD occurrence. **Objectives**: To review evidence on the relationships between maternal folic acid supplementation during preconception and/or pregnancy and the risk of ankyloglossia in infants. **Search Strategy**: We searched online bibliographic databases for studies investigating the effect of maternal folic acid supplementation during preconception or pregnancy on the occurrence of ankyloglossia in offspring. **Selection Criteria:** Observational, interventional studies, and systematic reviews assessing the relationships between folic acid and ankyloglossia. **Data Collection and Analysis:** The database searches yielded 93 articles. After removing duplicates and screening titles and abstracts, 26 remained. One article was judged relevant for inclusion in analyses; a case-control study that directly mentions the relationship between folic acid supplementation and ankyloglossia **Main Results**: One case-control study reported that regular intake of folic acid supplements was higher in women with infants with ankyloglossia. However, this study has limitations regarding design, selection bias, and confounding, calling the findings into question. **Conclusions**: Insufficient evidence exists for a relationship between folic acid supplementation and ankyloglossia. Currently, the benefits of folic acid supplementation far outweigh the risks. This must be clearly communicated to patients by their clinicians during preconception and antenatal care.

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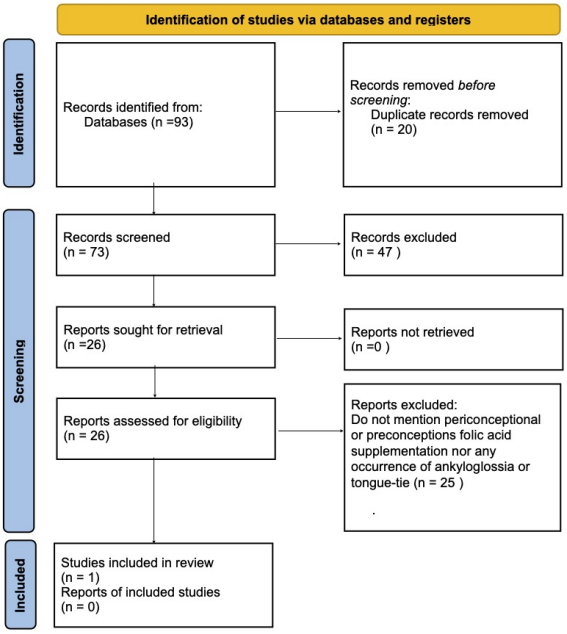

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Table 1 Maternal folic acid supplementation and the risk of ankyloglossia (tongue-tie) in infants; a sy
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