

Ankyloglossia Under Debate: Concepts, Evidence, and the Risks of Clinical Oversimplification

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In recent decades, ankyloglossia has received growing attention in scientific literature and clinical practice, especially in the context of child health and breastfeeding. At the same time, there has been a significant increase in public and professional debate surrounding its diagnosis and treatment, often marked by oversimplified interpretations, excessive generalizations, and conceptual inaccuracies. This scenario reinforces the need for the discussion on ankyloglossia to remain grounded in clear definitions, thorough evaluation, and critical analysis of the available evidence [1,2].

Ankyloglossia is a recognized congenital condition, characterized by an anatomical modification of the lingual frenulum that results in restricted tongue mobility [1].

From a conceptual standpoint, ankyloglossia should be understood as a morphofunctional entity, as anatomy, histology, and physiology are inseparable. Structure forms the basis of function, and anatomical shape is the physical representation of functional capacity. Therefore, anatomical alterations capable of restricting tongue movement inherently carry potential functional implications. In this context, it is essential to distinguish between anatomical variations within the range of normality representing morphological adaptations without significant functional impact and congenital anomalies, which involve a deviation from the expected anatomical pattern with the potential for functional impairment. Ankyloglossia clearly belongs to the latter group.

This understanding is supported by its classification in international disease systems. The International Classification of Diseases (ICD-10) categorizes ankyloglossia as a congenital malformation (ICD-10: Q38.1), reinforcing its pathological nature and distancing it from interpretations that consider it a mere morphological variation within normal limits. Its inclusion in this ICD chapter consolidates its recognition as a structured congenital condition rather than a benign anatomical adaptation.

In light of these considerations, the term “functional ankyloglossia” does not correspond to a formally recognized diagnostic category in the scientific literature and should not be used. Conceptually, the expression is contradictory, as ankyloglossia is precisely defined as an anatomical alteration resulting in restricted tongue mobility, with potential functional consequences. Therefore, it is not conceptually

coherent to classify as “functional” a condition whose very definition involves structural limitation and possible dysfunction. What is observed in clinical practice is not the existence of “functional ankyloglossia”, but rather the variability in the functional impact of the same anatomical anomaly, which may manifest differently among individuals. The use of imprecise terminology contributes to diagnostic ambiguities, weakens scientific communication, and may lead to inconsistent or poorly supported therapeutic decisions [1,2].

The literature suggests that the presence of an anatomical anomaly alone does not necessarily determine the indication for surgical intervention. However, it is essential to recognize that the available body of evidence presents significant limitations, including a small number of randomized clinical trials, heterogeneous diagnostic criteria, a wide range of assessment tools, and often non-standardized outcomes. These limitations hinder the generalization of results and prevent the formulation of universal recommendations based on high-level evidence [3-5].

Given this context, therapeutic decisions should be based on the objective identification of the anatomical anomaly, combined with individualized clinical assessment conducted by trained professionals experienced in managing the condition, using instruments and tests described in the literature. Analysis of reported complaints, potential functional repercussions, and clinical evolution over time remains a relevant part of the decision-making process, even though a strong consensus is still lacking in certain aspects of management [2,4].

On the other hand, the literature also describes clinical situations in which surgical intervention is considered appropriate, particularly when there is persistent functional impairment. When correctly indicated and technically well-performed, lingual frenulum surgery is widely used in clinical practice. Nevertheless, the absence of definitive evidence highlights the importance of avoiding both overdiagnosis and overtreatment, as well as undertreatment in the presence of a plausible clinical indication. Transparent communication about potential benefits, risks, and uncertainties is also essential [3-5].

Conclusion

Given the limitations of the available evidence, clinical management should be based on individualized evaluation, avoiding the use of imprecise or conceptually inconsistent terminology that compromises formal clarity, and critically analyzing reported complaints and functional development. The use of the term “functional ankyloglossia” is conceptually inappropriate and lacks recognition in formal classification systems or consistent support in the scientific literature. The development of methodologically robust studies is crucial to more effectively guide clinical practice and therapeutic decisions.

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