Objective: the present work aims to report the case of a premature newborn patient with altered lingual frenulum associated with gagging episodes. Case Report: all data was obtained directly in the speech therapy service, as well as from the patient’s hospital records. The family authorized the images used on this presentation. Once the newborn started oral feeding, he presented gagging episodes and respiratory distress. The speech therapy team performed the lingual frenulum evaluation proposed by Martinelli and adapted to newborns, in order to observe anatomical and functional aspects functional aspects and the non-nutritive and nutritive suction. The evaluation concluded that the lingual frenulum was dysfunctional. As to the therapeutic conduct, the newborn was submitted to a lingual frenulotomy performed by an oral surgeon, with speech therapist support, in an outpatient setting and with no complications. The cross-disciplinary action provides effectiveness of the results, based on the aspect that the function of the tongue can be checked immediately after the surgery. One week after the frenulotomy, it was observed the absence of gagging, tiredness during breastfeeding, reduction of the pause period and increase of the suction power. Conclusion: this case clarifies the discussion about disturbed lingual frenulum and its importance to essential functions such as suction and deglutition. Keywords: Frenulotomy; Lingual frenulum disturbance; Dentistry; Gagging.