Structured Abstract

Objectives To estimate the influence of a short mandible on the risk of developing a cleft palate with/without a cleft lip (CP).

Setting and sample population The retrospective sample consisted of 115 2-month-old Danish infants with CP, and 70 control infants with unilateral incomplete cleft lip (UICL).

Material and Methods Cephalometric X-rays were obtained. Mandibular length (L-m) was measured and corrected for body length (L-b) to remove influence of varying body length in the sample. Logistic regression was applied to the corrected mandibular length (L-mc) to calculate the risk of having a cleft palate. Results The mean mandibular length in the group with CP was about 4mm shorter than in the control group. Odds ratio (OR) was calculated to be 0.58 (95% confidence interval 0.48-0.68), implying that an individual's risk of cleft palate with/without a cleft lip increases about 50% per mm decrease in mandibular length.

Conclusions A special facial type including a short mandible is a possible risk factor for cleft palate, and it was found that the risk of cleft palate increases 58% per mm decreases in mandibular length.