論文要旨

Modulation of the masticatory path at the mandibular first molar throughout the masticatory sequence of a hard gummy jelly in normal occlusion.

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Objective: In this study, the authors investigated the modulation of the masticatory path at the mandibular first molar during natural chewing of a hard gummy jelly in adults with normal occlusion. Methods: The unilateral mastication sequence was divided into three stages, and the masticatory path of the mandibular first molar on the working side was analyzed at 2.0, 3.0, 4.0, and 5.0 mm vertical slice levels below the intercuspation in the frontal and sagittal views. Results: In the frontal view, the closing and opening angles and cycle width of the final stage at 3.0, 4.0, and 5.0 mm slice levels were smaller and narrower than those of the initial stage, although those at the 2.0 mm slice level were little changed. Discussion: Masticatory paths of the mandibular first molar at slice levels greater than 3.0 mm were evidently modulated to adapt to the changing properties of the food, and those at the 2.0 mm slice level remained stable throughout the masticatory sequence.