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Reliability of a three-dimensional method for measuring facial animation: A case report

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ABSTRACT

Reliable methods of quantifying functional impairment of the craniofacial region are sorely lacking. The purpose of this study was to test the reliability of a three-dimensional method for assessing the functional repertoire of the face. Subjects were instructed to perform repeated sequences of five maximal facial animations. Facial motions were captured by three 60-Hz video cameras, and three-dimensional maximum motion amplitudes were calculated. Student's t-test and Pearson product-moment correlation coefficients were used to test for significant differences between repetitions. The results show moderate to excellent reliability of the amplitude of motion for the landmarks over all animations. For each specific animation, certain landmarks demonstrated excellent reliability of motion.

KEY WORDS: Facial animation, Three-dimensional, Reliability.

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