## The effect of jaw displacement on the asymmetry of big smile on face

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There are few people who can make the natural smile in the presence of other people or a camera, a lot of people cover their mouth and control their smile. Until now, many books say "To make good smile, it is important to have high self-esteem and improve themselves." In dentistry, it is often said that white and well-arranged teeth is necessary to make good expression (smile), it was thought that this matter is expected on the psychological implication. But focusing attention on our specialized area, prosthodontics, the jaw of recent young people is smaller than before, based on this, malocclusion is occurred and the jaw position is not locate normal position. It was reported that the jaw displacement makes effort to the cervical or facial muscle, it was suggested that this result prevent to make good smile physically.

The aim of this study is to analyze objectively the effect of the jaw displacement on the asymmetry of the big smile on face and to obtain the suggestion to obtain good smile. The nine subjects'normal and smiling face were measured three-dimensionally. And the length between the center of upper and lower labial and the both sides of the angle of the mouth was measured. To analyze asymmetry on the normal and big smiling face, the asymmetry index (AI) were used. As a result, for the big smiling face of the 3 in 4 subjects, the length of labial in the displacement side of the jaw is longer than the other side. For 4 in 5 subjects without jaw displacement, the longer side of labial in normal face is longer than the other side in smiling face.