

以下の英文の下線部(A) を和訳しなさい。

## The effect of inter-implant distance on the height of inter-implant bone crest.

### BACKGROUND:

The biologic width around implants has been well documented in the literature. Once an implant is uncovered, vertical bone loss of 1.5 to 2 mm is evidenced apical to the newly established implant-abutment interface. The purpose of this study was to evaluate the lateral dimension of the bone loss at the implant-abutment interface and to determine if this lateral dimension has an effect on the height of the crest of bone between adjacent implants separated by different distances.

### METHODS:

Radiographic measurements were taken in 36 patients who had 2 adjacent implants present. Lateral bone loss was measured from the crest of bone to the implant surface. In addition, the crestal bone loss was also measured from a line drawn between the tops of the adjacent implants. The data were divided into 2 groups, based on the inter-implant distance at the implant shoulder.

### RESULTS:

The results demonstrated that the lateral bone loss was 1.34 mm from the mesial implant shoulder and 1.40 mm from the distal implant shoulder between the adjacent implants. In addition, the crestal bone loss for implants with a greater than 3 mm distance between them was 0.45 mm, while the implants that had a distance of 3 mm or less between them had a crestal bone loss of 1.04 mm.

### CONCLUSIONS:

(A) This study demonstrates that there is a lateral component to the bone loss around implants in addition to the more commonly discussed vertical component. The clinical significance of this phenomenon is that the increased crestal bone loss would result in an increase in the distance between the base of the contact point of the adjacent crowns and the crest of bone. This could determine whether the papilla was present or absent between 2 implants as has previously been reported between 2 teeth. Selective utilization of implants with a smaller diameter at the implant-abutment interface may be beneficial when multiple implants are to be placed in the esthetic zone so that a minimum of 3 mm of bone can be retained between them at the implant-abutment level.