



Comparison of free gingival grafts on natural teeth and implants



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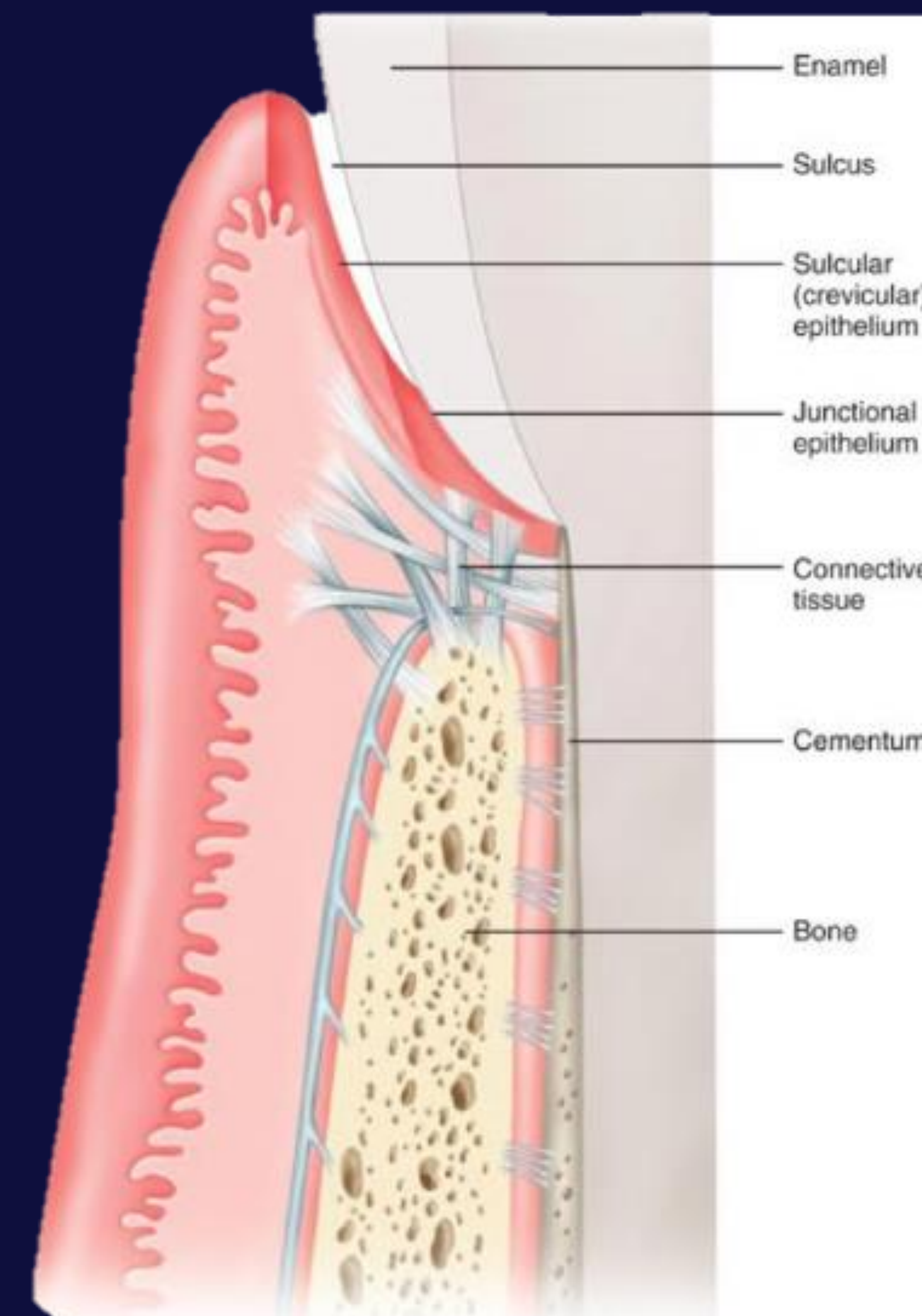
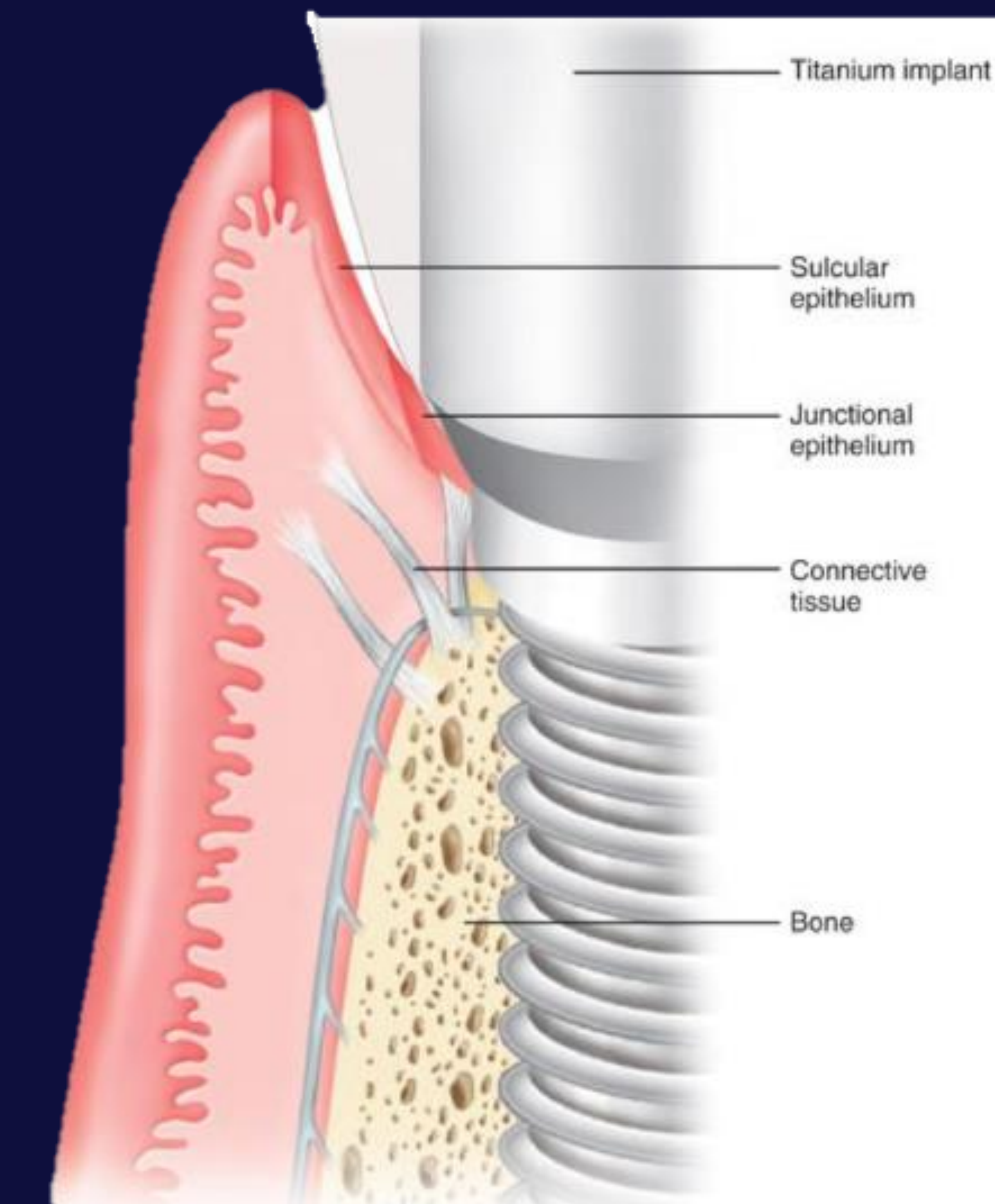
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Introduction

Optimal amount of attached gingiva >2mm around the teeth and/or implants is of vital importance to maintain periodontal and peri-implant health. The free gingival graft is a mucogingival surgery technique increases the keratinized tissue. This procedure has proven to keep periodontal and periimplant health in long term.

Objective

To analyze the gain of keratinized tissue from the report of clinical cases carried out in the Advanced Program of Oral Implantology at the UNAM and private clinic of doctor Lorena Contreras Alvarez.



Biological attachment to a natural tooth and to a dental implant (De Rose LF, Mealey BL. Periodontics: medicine, surgery and implants. St. Louis: Mosby; 2004).

Methodology

Of 7 clinical cases selected, 8 sites with free gingival grafting techniques; 3 were in implant areas and 5 in natural teeth. All procedures were made under informed consent. Initial and 6-month follow up photos were processed by the Photoscape computer program (version 3.7) to match the images in terms of pixels, length and width, thus achieving that no there are significant differences in size at the time of measurements.

To measure gingival width, the ImageJ program was used, which was previously calibrated to convert the measurements into millimeters and thus make a comparison of the amount of keratinized tissue in teeth versus implants.

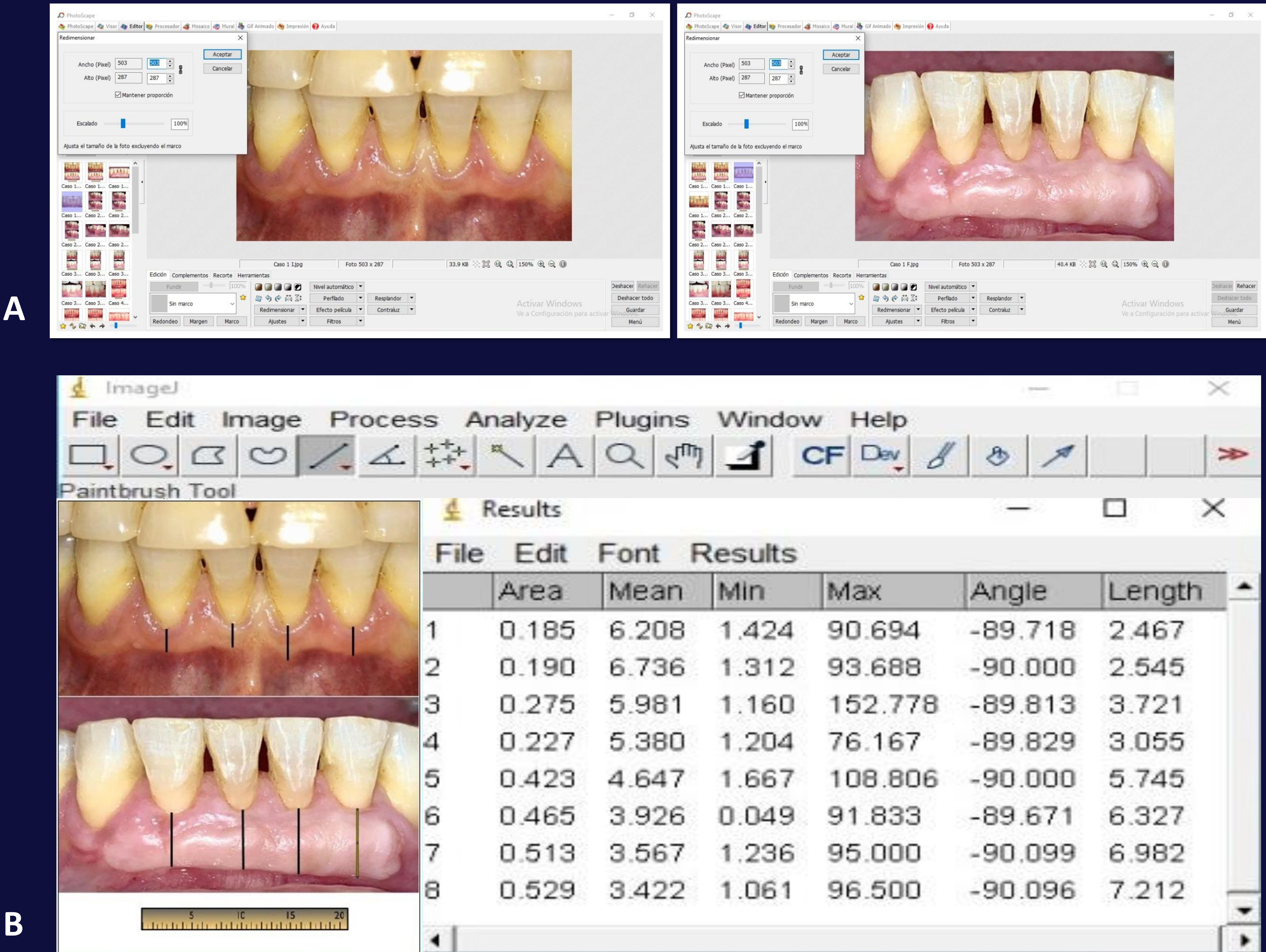


Figure 1. Image procesing A. Photoscape computer program for image size standarization. B. Keratinized gingiva Measuring in Imagej program

Results



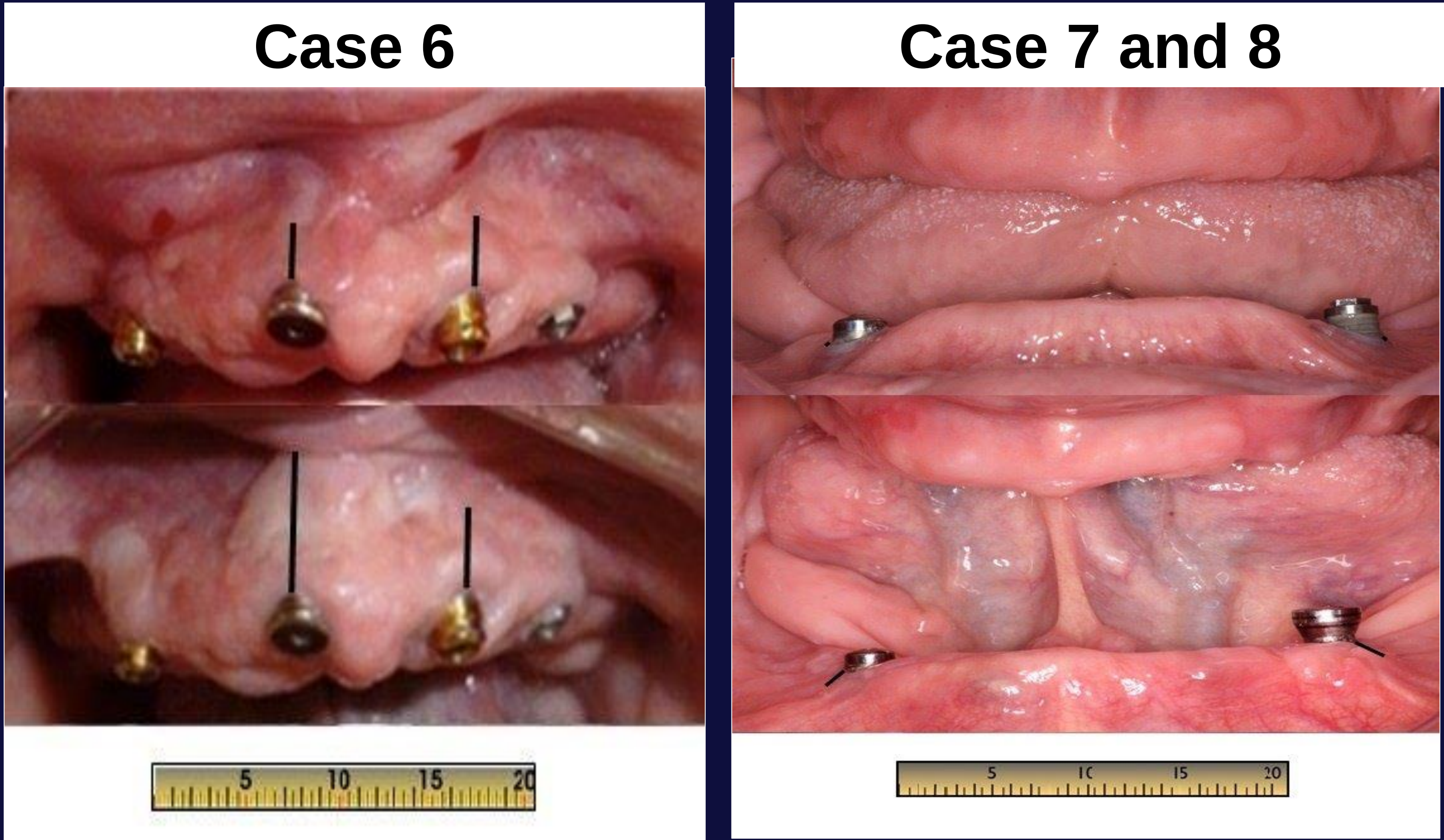
TEETH		
	BEFORE SURGERY	AFTER SURGERY
Case 1	2,947	6,5665
Case 2	3,722	4,559
Case 3	1,2345	4,1645
Case 4	2,9885	8,715
Case 5	0,426	6,818
Mean	2,2636	6,1646

A final value was obtained in each case regardless of the number of teeth surgically treated. Finally, we obtained the mean gain of teeth.

Results

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IMPLANTS		
	BEFORE SURGERY	AFTER SURGERY
Case 6	2,826	4,932
Case 7	0,288	1,407
Case 8	0,278	1,811
Mean	1,130666667	2,716666667

Finally, we obtained the mean gain of teeth and implants

Result summary

Seven patients participated in this investigation a total of eight sites were measured. After mucogingival surgery, there was an increase in both groups at 6 months. When comparing both groups, a mean gain of 3.90 was obtained in the natural tooth sites, which was significantly higher than in the implants, which reached a mean of 1.59 at 6 months.

Conclusion

Within the limitations of the current study, our results have shown that the gain of keratinized gingiva with the free gingival graft technique increases considerably in both groups, however it is observed that it is greater in teeth.

References

