

상악 전치부의 임플란트 식립과 관련하여 혈관개재골막결합조직판막술을 이용한 치조제증대술: 3가지 증례보고

Ridge Augmentation Using Vascularized Interpositional Periosteal- Connective Tissue (VIP-CT) in Conjunction with Anterior Implant Placement in Maxilla : Report of Three Cases

Yun-Sang Kim

Department of Periodontology, Dental Hospital in Sanbon, Wonkwang University

ABSTRACT

Purpose: The aim of augmentation of the alveolar ridge is to restore absorbed alveolar ridges for future implant site or esthetic prosthodontic restoration. The present clinical report describes the anterior maxillary augmentation cases using a soft tissue rotated palatal flap, and considers various problems of before and after surgery.

Method: First & second patients were treated by vascularized interpositional periosteal-connective tissue(VIP-CT) flap for horizontal soft tissue augmentation. Especially second patient was progressed with bone grafting at the same time. Third patient was treated by the same flap with bone graft and implant placement in single tooth missing premaxillary area.

Result: The obtained horizontal augmentation width measured 0.5~2.7 mm.

Conclusion: This technique constitutes a viable approach for augmentation the anterior sector of alveolar ridge with the placement of dental implants. But it needs correct diagnosis preparation and careful surgery skill.

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KEY WORDS: bone augmentation; premaxillary dental implants; soft tissue augmentation; VIP-CT flap.

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3).

가 가

4,5)

가 1). 6-8)

가 2).

VIP-CT(Vascularized interpositional periosteal -connective tissue)

. VIP-CT

Correspondence: Dr. Yun-Sang Kim, Department of Periodontology, Dental Hospital in Sanbon, Wonkwang university, 1142 Sanbon-Dong, Kunpo, 435-040, Korea. e-mail: den94@wonkwang.ac.kr., Tel: 82-31-390-2875, Fax: 82-31-390-2777

* : 2007 : 2008 3 3 ; : 2008 4 18

. VIP-CT flap < |>

42 5 2006 9

가 #13~24,

가 가 #33~42 wire-resin splint, #36, 37 가

9) , #46 #46 .

VIP-CT #17 #12~22

, (Fig. 1a, b) fixed implant bridge , #45, 47 fixed

implant bridge, #36,37 .

(Implantium[®],
Dentium, Suwon-si, Korea) #12 3.8×12 mm, #21, #22
3.4×12 mm . #12, #11 3
(Bio-Oss[®], Geistlich,
Wolhusen, Switzerland) (Green Plaster
[®], Green cross, Yongin-si, Korea)
(Bio-Gide[®], Geistlich, Wolhusen, Switzerland) .

1:100,000 epinephrine lidocaine
(200 mg,), (375 mg,),
) 5~7 (100 mg,
(0.5 mg,) 5

가 (Listerine VIP-CT flap 2

[®], IDS Manufacturing Co. Ltd, Lamluca, Thailand)

7~10 VIP-CT

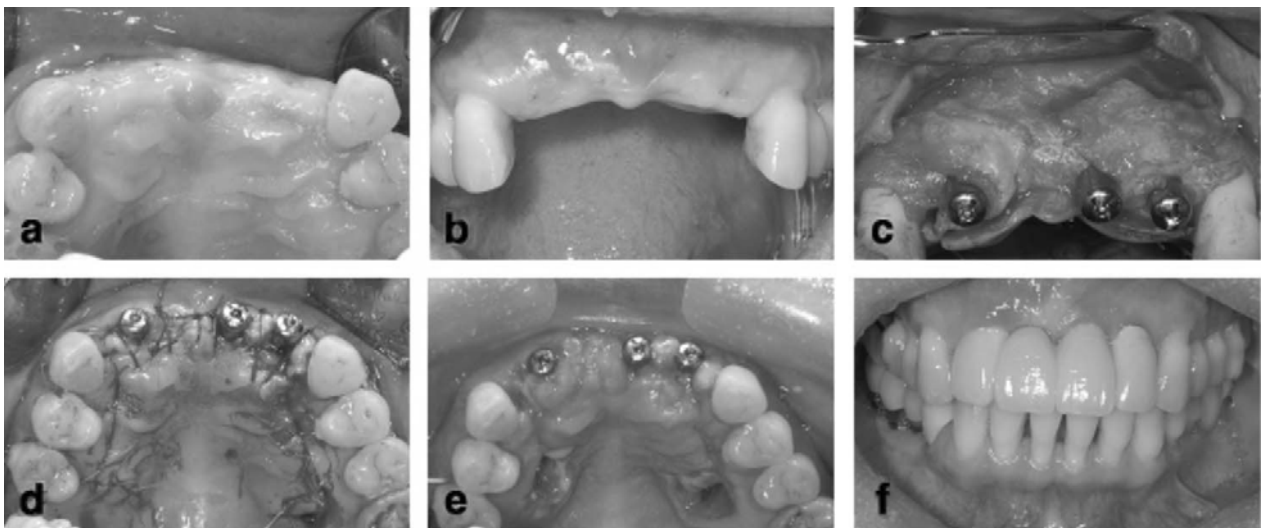


Figure 1. Intraoral clinical view of First patient. (a, b) Vertical & horizontal clinical preoperative view. (c) The VIP-CT flaps were grafted in both premaxillary area. (d) Flaps were sutured. (e) Stitch-out; the necrosis can be seen in both posterior palatal area. (f) The prosthetic restoration after cementation.

(Vicryl[®], Johnson and Johnson Ltd, Gargrave, UK) 5-0

1

(Fig. 1c) 4-0, 5-0

(Fig. 1d).

acrylic stent

#11

3.4×10 mm, #22, 23 3.4×12 mm

< II >

가 2 mm #22

44 06 8

. VIP-CT

. #27, 37 #23 #25

(Fig. 2c, d, e). 6

2

#22 (Fig 2-a, b) #11,

(Fig. 2f).

22, 23

4-unit bridge

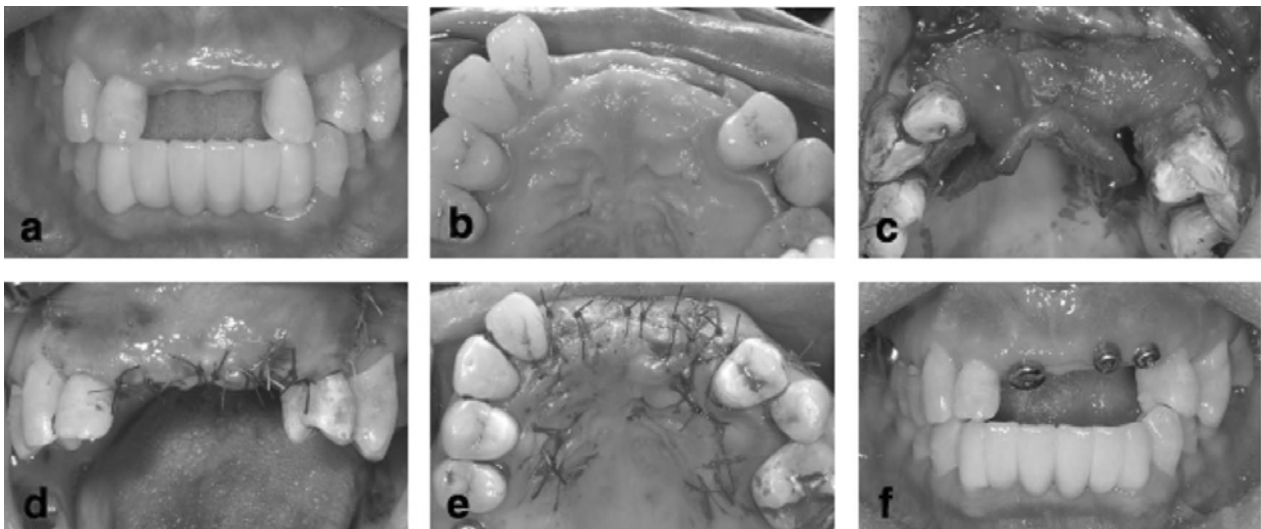


Figure 2. Intraoral clinical view of Second patient. (a) Vertical clinical pre operative view. (b) Horizontal clinical pre-operative view after #22 extraction. (c) The VIP-CT flaps were grafted in both premaxillary area. (d, e) Flaps were sutured. (f) The healing abutments were placed after 2nd implant surgery.

< III >

#21

#22 3.4×14 mm

47 #22

(Fig 3a, b).

가

Surgical stent

CT가

. VIP-CT

VIP-CT

(Fig. 3c, d).

가

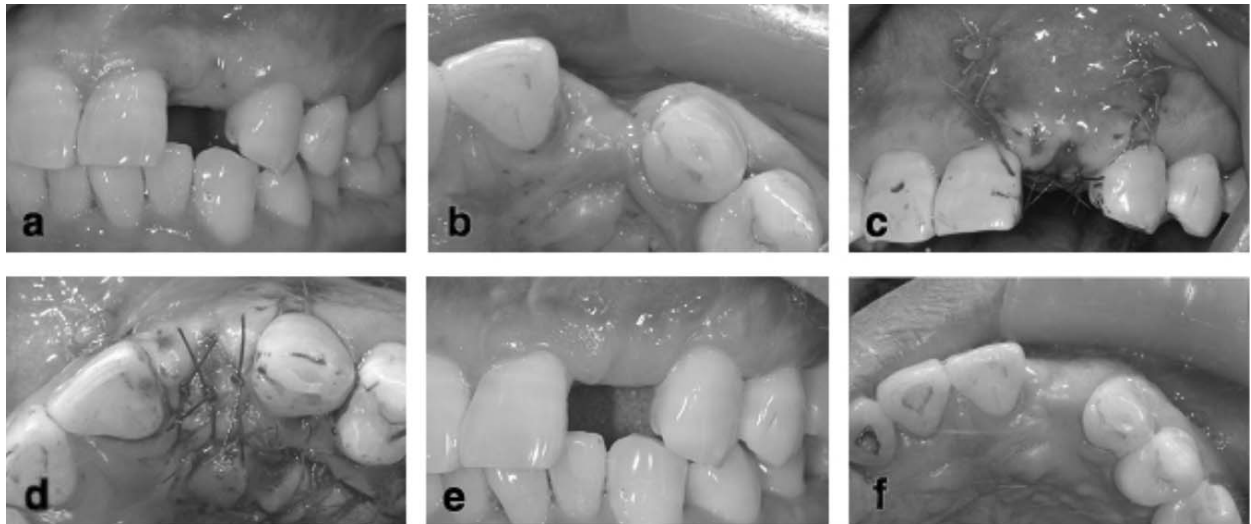


Figure 3. Intraoral clinical view of third patient. (a, b) Vertical & horizontal clinical preoperative view. (c, d) The VIP-CT flaps were grafted and flaps were sutured in #22 area. (e, f) Intraoral clinical view at the 7-month follow-up.

I
 , 2 , 5
 (5 mm)

Table 1. Clinical Records of Labio-Palatal Distance in First Patient's Surgery Sites (mm)

	Pre-1st op.	Pre-2nd op.	After 5 months	Remark
#12	10.3	10.8	12.8	pontic site
#11	10.1	10.2	11.7	
#21	10.4	10.5	11.0	
#22	11.0	10.9	11.6	

II
 I 6

Table 2. Clinical Records of Labio-Palatal Distance in Second Patient's Surgery Sites (mm)

	Pre-op.	After 6 months
#11	11.3	12.9
#22	11.2	12.1
#23	11.3	13.0

III 가

Table 3. Clinical Records of Occlusal-Ridge & Labio-Palatal Distance in Third Patient's Surgery Sites (mm)

	Pre-op.	After 7 months
#22 depth	8.8	8.0
#22 width	12.3	15.0

가
 가
 I 가
 flap 5 VIP-CT #12

2 mm, #21 0.5 mm, #22 0.7 mm

#21, 22 VIP-CT

#12 가

#12 II #12 6

가 가

(Table 1). Allen¹⁰⁾ SCTG(subepithelial #11 0.5mm

connective tissue graft) 가 1.5mm 가 1.6 mm,

VIP-CT #22 0.9 mm, #23 1.7 mm 1~1.5

가 가 (Table 2). I #22,

#21, 22 가 2 2

SCTG prodedure II I

11)

12,13) I

3 가 (Fig. VIP-CT 가 가 II

1e). #21, 22 VIP-CT III VIP-CT

14,15) Sclar⁹⁾

가

Sclar가 (CollaPlug[®], VIP-CT가 가

Centerpulse Dental, Carlsbad, USA) ⁹⁾ 가

(Surgicel[®], Johnson & Johnson Ltd, co.) 20 Hz, 15 mJ, 0.3 W

Gargrave, UK) ^{16,17)} 가 (Bio-stimulation)

. 50 26,27)

FGG

가

3 (Bio-Oss[®]) 28) Er;YAG laser

(Bio-Gide[®]) 1.68~5.0 J/cm² 가

18-22) 3.37 J/cm²

23) 29) Er:YAG laser

가 2

²⁴⁾ Hammerle & Jung²⁵⁾ 가 가 2~3

가 . Qadri³⁰⁾ 3 , 2 5 가 2
 가 . 7 가 가
 Seibert³¹⁾ 가 0.8 mm 2.7 mm
 Class I (Table 3). #21 1 mm (Fig.
 , Class II 3e, f).
 , Class III 가 VIP-CT flap
 Allen³²⁾ Type A
 , Type B , Type C VIP-CT
 Mild 3 mm Moderate 3~6 mm Severe
 6 mm 가
 , , , 2 가
 , , 6가 가
 가 , 2 가
 가 3 가
 가 가 9) . #21
 가 가 33) #23
 34) 가 Sclar 가 #21
 VIP-CT 가 가
 가 4.6 mm 가
 37) 2
 35) 3.06 mm
 III 4~5 mm
 2.5 mm #21 2 mm VIP-CT
 가 2
 #21 7 mm 가
 #23 4 mm 가가
 가
 가 가

fibrin glue

1 2

VIP-CT가

. VIP-CT

가

가

가

2004.

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