CASE 1

P. CARDELLI
ITALY
C1 and BondBone in the Eshtetic Zone
C1 and BondBone

Initial
C1 and BondBone

Initial

Severe deep bite
C1 and BondBone

Initial
C1 and BondBone

CBCT template
C1 and BondBone
CBCT

Buccal bone plate: < 1 mm

Cemented restoration
C1 and BondBone

Evaluation

"Type 2" implant placement

Advantages:
Soft and hard tissue stability
Preservation of a buccal bony contour

Disadvantages:
2-3 surgical procedures: extraction-implant-exposure?
provisional management (occlusion?)

Chen ST, Buser D.
Clinical and esthetic outcomes of implants placed in postextraction sites.

Buser D, Chappuis V, Bornstein MM, Wittneben JG, Frei M, Belser UC.
J Periodontol. 2013 Jan 24. [Epub ahead of print]
C1 and BondBone Evaluation

Type 1 vs Type 2 implant placement

Both treatment approaches appear to be appropriate, with the preferred treatment based on factors other than resultant soft tissue changes.

C1 and BondBone

Evaluation

Type I

Predictable technique
Treatment of choice in cases of single anterior tooth
Correct positioning of the implants
Maintaining the original condition of both bone and soft tissues around the tooth

C1 and BondBone

Evaluation

Ridge alteration following tooth extraction:
Phase 1: Bundle bone $\rightarrow$ woven bone substitution
(mainly buccal wall) $\rightarrow$ vertical reduction
Phase 2: resorption from the outer surfaces of both bone walls.

Esthetic outcome?

Araújo MG, Lindhe J.
Dimensional ridge alterations following tooth extraction. An experimental study in the dog.
Buccal plate augmentation

Even subtle postextraction buccal plate resorption may have significant clinical effects, particularly in the esthetic zone. Buccal plate augmentation consists of placement of bone graft material over an intact buccal plate, underneath the soft tissues in a surgically created pouch with an aim to maintain or augment the soft tissue esthetics of the region.

C1 and BondBone
Planning

Single flap approach
"Type 1" implant placement
Buccal plate augmentation (composite)
Immediate provisional

Trombelli L, Farina R, Franceschetti G, Calura G.
Single-flap approach with buccal access in periodontal reconstructive procedures.

Caiazzo A, Brugnami F, Mehra P.
Buccal plate augmentation: a new alternative to socket preservation.

Casap N, Zeltser C, Wexler A, Tarazi E, Zeltser R.
Immediate placement of dental implants into debrided infected dentoalveolar sockets.
C1 and BondBone Surgery

Single Flap Approach

Atraumatic Extraction

lunedì 22 aprile 2013
C1 and BondBone Surgery

2.4 Twist Drill

OT4 On The Palatal Wall

OT4 Without Template

3.0 Twist Drill
C1 AND BondBone Surgery

**Countersink**

**Final position**

**C1 3.75x10**

**1 mm subcrestal**
C1 and BondBone

Immediate provisional

Immediate provisional from surgical template
C1 and BondBone Surgery

Composite graft: BondBone (50%) and $\beta$-TCP/HA (50%)
C1 and BondBone Surgery

Composite graft: BondBone (50%) and $\beta$-TCP/HA (50%) without membrane
C1 and BondBone Surgery

Provisional placement + bucca gap filling ($\beta$-TCP/HA)

Suture PGA 6-0

Palatal aspect

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C1 and BondBone Healing

2 weeks

1 month

2 months

2.5 months
C1 and BondBone

Impression (3 months)

Adequate buccal contour
C1 and BondBone

Impression (3 months)

Emergence profile acquisition

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C1 and BondBone

Occlusal Relationship

C1 Base

"Veneer Prepared" Lithium Disilicate Abutment
C1 AND BondBone

Abutment try-in

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C1 and BondBone

Abutment final seating
C1 and BondBone

Restoration delivery
C1 and BondBone

Final Outcome

[Images of teeth and X-rays]
C1 AND BondBone

Final outcome

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C1 and BondBone

Soft tissue contour comparison, right-left
C1 and BondBone

Soft tissue contour comparison, pre and post-op