ORTOCAST

#066
EXTRA-ALVEOLARES

Aço ou Titânio ?

24 99301-7885 sergiocury1

OBS
OrthoBoneScrew

1.5 x 8mm

2.0 x 12mm

2.0 x 14mm with holes

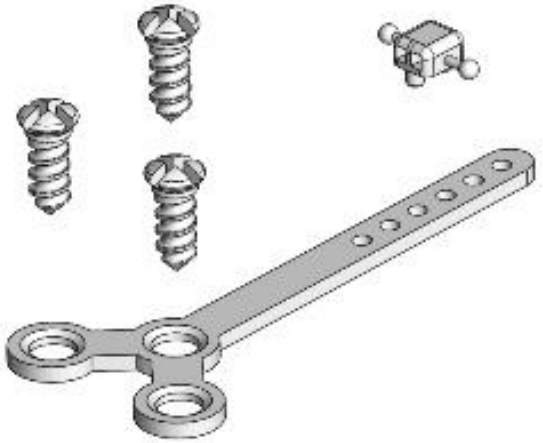
mini implantes
Sérgio Cury

ORTOCAST

DAT STEEL

mini implantes
Sérgio Cury

ORTOCAST



mini implantes
Sérgio Curry

ORTOCAST

peclab
Sistema de Implantes Dentários

EXTRA ALVEOLAR

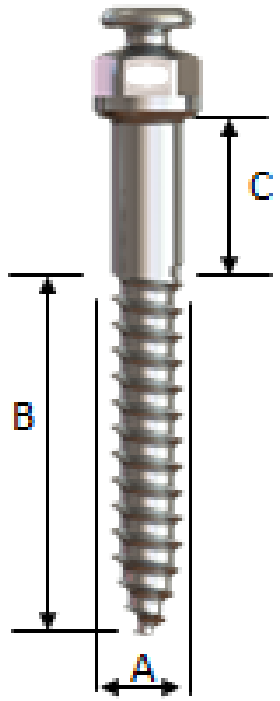
FR 10X2

SF 10X2

FR 10X4

mini implantes
Sérgio Cury

ORTOCAST



Código	Diâmetro A (mm)	Rosca B (mm)	Transmucoso C (mm)	Região Indicada
5578	2	10	2	Buccal Shelf + Crista Infrazigomática
5570	2	12	2	Buccal Shelf + Crista Infrazigomática
ORTOEA 00005	2	10	4	Buccal Shelf + Crista Infrazigomática

LANÇAMENTO

MINIPARAFUSO EXTRARRADICULAR DE AÇO

MAIOR LIBERDADE DE MOVIMENTOS

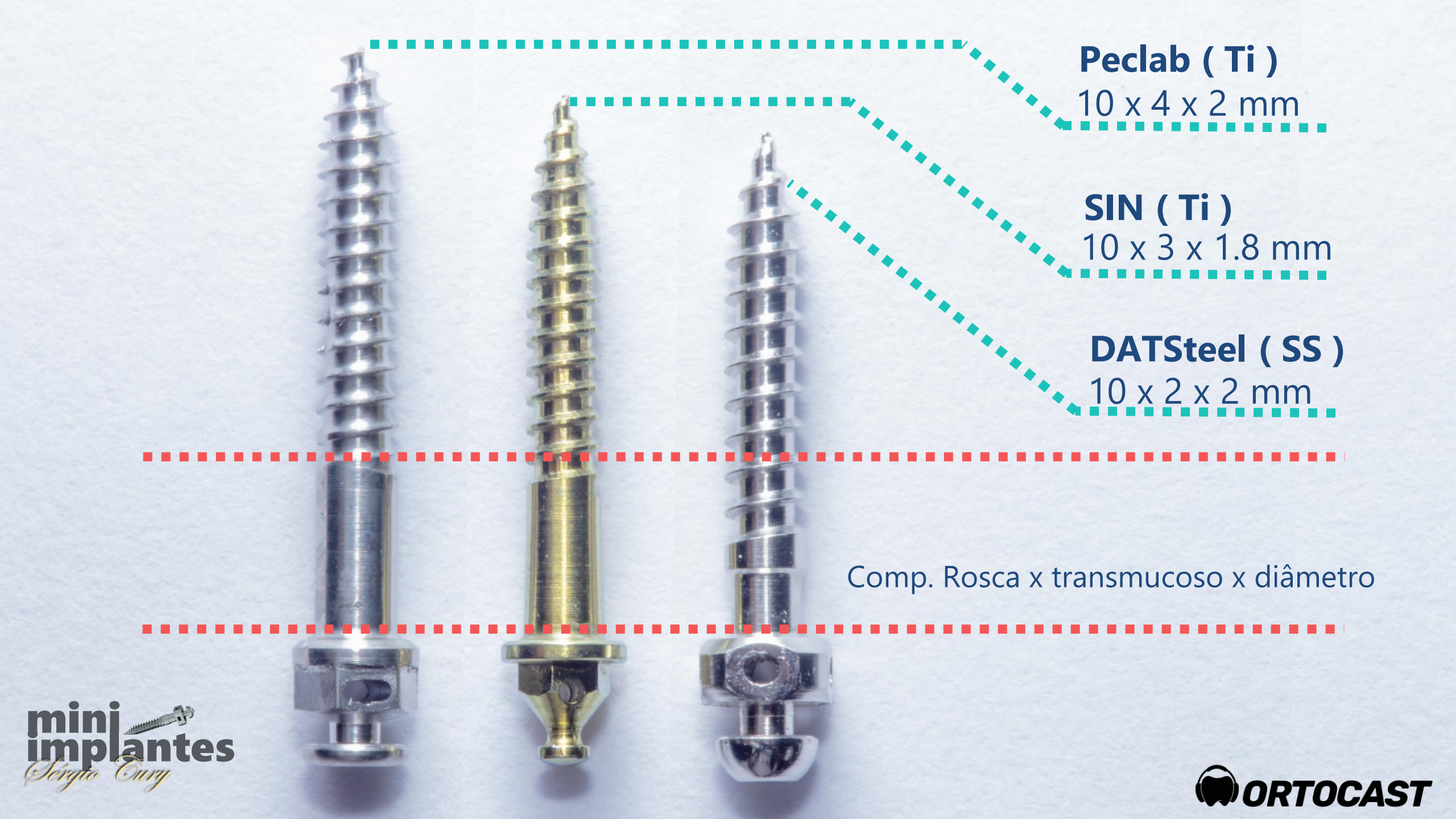
NA MECÂNICA ORTODÔNTICA

rosca	pt	Ø
12	x 4	x 2 mm
14	x 4	x 2 mm

mini implantes
Sérgio Cury

MORELLI® ORTODONTIA

ORTOCAST


Peclab (Ti)
10 x 4 x 2 mm
SIN (Ti)
10 x 3 x 1.8 mm
DATSteel (SS)
10 x 2 x 2 mm
Comp. Rosca x transmucoso x diâmetro
mini implantes
Sérgio Curry
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Original Article

Failure rates for stainless steel versus titanium alloy infrazygomatic crest bone screws:

A single-center, randomized double-blind clinical trial

Chris H. Chang[a]; Joshua S. Lin[b]; W. Eugene Roberts[c]

ABSTRACT

Objectives: To compare failure rates for stainless steel (SS) and titanium alloy (TiA) bone screws (BSs) placed in the infrazygomatic crest (IZC).

Materials and Methods: A total of 386 consecutive patients (76 male, 310 female; mean age 24.3 years, range 10.3–59.4 years) received IZC BSs (SS or TiA) via a double-blind, split-mouth design. BSs penetrated attached gingiva (AG) or moveable mucosa (MM) with 5 mm of soft tissue clearance. All BSs were immediately loaded and reactivated monthly with ≤14 oz (397 g or 389 cN) applied directly to the upper archwire bilaterally for 6 months to retract the maxilla to correct Class II or bimaxillary protrusion.

Results: Of the 772 devices, there were 49 (6.3%) failures: 27 SS (7.0%) and 22 TiA (5.7%). The 1.3% difference was not statistically significant ($P = .07$). There was no significant relationship between SS or TiA failures relative to (1) right vs left side, (2) unilateral vs bilateral, or (3) age at failure. Significantly ($P < .05$) increased failure rates were noted for SS screws in only two subgroups: AG site (7.4%) and right side (7.8%). Unilateral failure occurred in 21 patients (5.4%), and bilateral failures occurred in 14 of the total 772 patients (1.8%).

Conclusions: The overall success rate of 93.7% indicates that both SS and TiA are clinically acceptable for IZC BSs. (*Angle Orthod.* 2019;89:40–46.)

Failure Rates for SS and Ti-Alloy Incisal Anchorage Screws: Single-Center, Double Blind, Randomized Clinical Trial

Abstract

Objective: Compare the 6 month failure rates for stainless steel (SS) and titanium alloy (Ti) miniscrews placed between the roots of maxillary central and lateral incisors. The null hypothesis was that there is no statistical difference in the failure rates for screws made of SS or Ti.

Materials and Methods: Over a three year period (2014-17), 320 consecutive 1.5x8mm miniscrews (OBS®, iNewton Dental Ltd, Hsinchu City, Taiwan) were placed bilaterally between central and lateral incisor roots in 160 consecutive patients (26 males,134 females, mean age 25.9 yr, range 10-58 yr). All of the screws served as temporary anchorage devices (TADs) to intrude the maxillary anterior dentition. Half the TADs were made of 316LVM surgical stainless steel (SS) and the other half (160) were composed of Ti6Al4V titanium alloy (Ti). All the miniscrews were placed by the same orthodontist with a double blind, split mouth design. Torque was measured when each screw was seated to provide an index of primary stability. All TADs were immediately loaded with 2-oz (57g, 55 cN), and used for at least 6 months as anchorage to intrude the maxillary anterior segment. Anchorage loss due to a loose screw was defined as a failure.

Results: The overall failure rate was 7.2% for incisor anchorage screws placed in cortical bone about 0.6mm thick. For the right and left sides combined (n=160 for each material), 18/160 SS (11.25%) and 5/160 Ti (3.125%) failed. A chi-square test revealed the difference in failure rates was statistically significant ($p \leq 0.05$). Torque levels indicating primary stability were relatively consistent (5.8-6.1N-cm), and appear to be unrelated to TAD failure. The hypothesis was rejected because Ti alloy has a superior success rate to SS as a material for incisal miniscrews.

Conclusions: TADs made of Ti alloy have a lower failure rate compared to SS when placed in thin cortical bone. These results are consistent with a biocompatibility-related tendency for less bone resorption at the bone screw interface. (J Digital Orthod 2018;52:70-79)