the factors that may affect bone alterations during healing after placement of the implants, such as the relationship to the vestibular alveolar ridge and the position of the vestibular marginal ridge, affected how much resorption there was of the vestibular ridge.

Conclusion

Within the limitations of this study in dogs, we may conclude that:

The neck configuration, specifically the convex configuration, impacted the height of the crestal bone implants with an external connection (screw) compared with the internal connection.

The BIC is larger in conical implants of type C1.

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Preservation of marginal bone and bone contact as a function of implant geometry. A comparative study in dogs.

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Introduction
Loss of height from peri-implant gingival fibrous tissue with the absence of connective tissue attachment, as well as the vestibular mucosal defect, is progressive and takes place during the first few months.10,11 Several studies have demonstrated that crestal bone loss occurs as a result of the surgical procedures and abutment placement.12 It is critically important to perform sinus augmentation to stabilize sinus lifting and maintain bone volume.13

The objective of the present study was to evaluate bone contact and crestal bone loss of the mirror images of the vestibular and lingual sides in relation to the socket walls of the implant. The study was based on the hypothesis that crestal bone will be lower under implants with platforms at the crestal level than under those with a subcrestal platform.

Materials and methods
A total of 108 implants (60 on the right side and 48 on the left) were used in the study, with the reflection of the right side (right side on the left side and vice versa). The implants were distributed among three groups: Group A: 16 implants (MIS® LANCE®); Group B: 16 implants (Osstem®); Group C: 16 implants (Implantdirect®). The implants were placed according to a standardized protocol and were immediately restored with abutments torqued to 20 Ncm.

A representative animal (p1) with a pitted socket treated surface of the implant.34

The implants were placed using a twin-screw technique for insertion and were inserted into the alveolar ridge without the removal of the periodontal ligament. The implants were inserted using a calibrated digital image to 30° or 55° in a semicircular path, using CALVIMET® (Exakt Apparatebau). The thickness of the crestal bone measured along the whole vestibular and lingual sides of the implant was determined.

Histological and histomorphometric analysis
A total of 21 implants were analyzed histologically to observe bone contact, bone space, and bone volume.

Results
All the dogs showed bone restoration, bone space, and bone contact as well as bone volume in the compared areas. The results showed that the bone space percentage was lower in the group treated with a subcrestal implant than in the group treated with a Crestal implant. The bone contact was higher in the group treated with a subcrestal implant than in the group treated with a Crestal implant. The bone volume was higher in the group treated with a subcrestal implant than in the group treated with a Crestal implant.

Discussion
The results of the present study demonstrated that the subcrestal implant is the best option for the preservation of the crestal bone and for the prevention of crestal bone loss. This finding is in agreement with the results of previous studies that have shown that the subcrestal implant is more effective in preserving the crestal bone than the Crestal implant. However, further studies are needed to confirm these findings.

References