

AIM

To compare the implant stability, bucco-lingual width of the alveolar ridge and marginal bone loss around implants, after ridge split technique and implant placement using piezoelectric bone surgery and rotary instruments.

MATERIALS AND METHODS

A split mouth study design was done among 5 patients with bilateral partially edentulous sites with horizontal ridge deficiency in posterior mandibular arch. In control sites, ridge split procedure and implant site preparation done using traditional rotary instruments and in the experimental sites, ridge split procedure and implant site preparation done using piezoelectric device. Clinical parameters such as Implant stability, Bucco-lingual ridge width and Marginal bone loss around implants were recorded.

RESULTS

There was an increase in implant stability in both piezo and rotary treated sites, but comparatively more in test site when compared to control site. There was also statistically significant increase in bucco-lingual width of the ridge in test sites in 3 months. There was no significant change in marginal bone level on both sites.

CONCLUSION

The implant stability and bucco-lingual ridge width were comparatively more in test site than in control site which shows the efficiency of piezoelectric device. Overall, the test sites showed desirable results when compared to control sites.

KEYWORDS: Dental implants, Ridge split, Piezosurgery, Rotary instruments.