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# Comparative Evaluation of Primary Stability of Endosseous Implants between Males and Females using Resonance Frequency Analysis Methodology: An Original Research

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### **Background:**

Dental implantology is the state of the art technique to replace missing teeth. Implant stability plays an important role in success of treatment. **Aims and objectives:** 1) To compare and evaluate the difference in mean implant stability score between the periods for each gender. 2) To evaluate and compare of the difference in mean implant stability score between the genders for each period. **Materials and Mathed**:

## Materials and Method:

A total of 40 implants (dentium implant) were placed in 40 patients (20 males and 20 females). The Osstell<sup>TM</sup> resonance frequency analyzer was used to determine the primary stability at baseline (day 0), day 60, and day 90 for each of the eight implants. Data was analysed using Newman-Keuls test. **Results:** 

Mean implant stability score between the periods showed significant (p<0.01 or p<0.001) increase in implant stability score in males at both post periods (day 60 and 90) as compared to baseline (day 0). Further, in males, it also increase (p<0.01) significantly at day 90 as compared to day 60. In contrast, in females, it increase significantly (p<0.001) at day 90 as compared to both day 0 and day 60 but not differ (p>0.05) between day 0 and day 60 i.e. found to be statistically the same. Similarly, for each period, comparing the difference in mean implant stability score between the groups, Newman-Keuls

test showed similar (p>0.05) implant stability score between the two groups at all periods i.e. did not differ significantly.

#### **Conclusions:**

Within the limitations of this study, it can be concluded the mean implant stability score increase linearly with time and the increase was evident slightly higher in males as compared to females. Similarly, for each period, comparing the difference in mean implant stability score between the two group at all periods i.e. did not differ significantly.

Keywords: Primary stability quotient, primary stability, Resonance frequency analysis.

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