Insertion torque and resonance Frequency analysis (ISQ) as predictor methods of implant osseointegration

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© ariesdue.Aim Determining appropriate primary stability at time of implant placement is a key therapeutic decision. The aim of the study was to compare insertion torque and implant stability quotient (ISQ) obtained at the time of implant placement, as predictors of osseointegration. Methods There were 31 implants evaluated in the maxilla and 29 in the mandible. A "High Torque Indicating Ratchet Wrench" was used for the measurement of insertion torque and a "Osstell MentorR" to register the ISQ value at the end of each surgery. At 6 weeks counter-torque was performed on each implant using a "Low Torque Indicating Ratchet Wrench" applying 20 to 32 Ncm. Successful osseointegration was appropriately obtained with torque insertion of 35 or more and an ISQ of 60 or more without mobility, as well as torque insertion less than 35 and an ISQ less than 60 with mobility. The results, contrary to those described above, were considered to be failure. The use of ROC (Receiver Operating Characterist