The Thickness of the Alveolar Buccal Bone after Immediate Implant Placement and Provisionalization: A Retrospective CBCT Evaluation

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Abstract: A loss of buccal gingival architecture after immediate implant placement procedures has been reported in animal study models. The aim of this retrospective radiographic evaluation is to evaluate the buccal bone behaviour in a human population after immediate tooth replacement. Thirty human subjects with a failing tooth in the esthetic zone will be included in this study. Immediate implant placement and provisionalization was performed and I-cat scans taken at implant placement, 6 months and 1 year. Vertical and horizontal buccal bone remodeling will be quantified on cone beam acquisitions. It appears from preliminary data that if, an appropriate implant positioning, implant diameter selection and bone grafting of the buccal gap is performed a predictable outcome in the preservation of the implant buccal aspect can be obtained.