Clinical Case – **Open Crown Lengthening #19**

**Key Attributes:** This procedure ablated both soft tissue and bone with minimal bleeding and minimal post-operative discomfort with rapid healing.

*Procedure by Dr. Joshua Weintraub*
Case Summary
The patient presented with a fractured tooth #19 with a history of endodontic treatment. The patient has inadequate clinical crown to restore. The options were to either extract tooth and place implant or complete a crown lengthening and then restore. The clinical objective was to establish biologic width and expose enough tooth structure coronal to the bone for proper restoration. The procedure was completed minimally invasive in about 50 minutes.

Technique Using Solea
The patient was anesthetized with 1.7 ml of 4% articaine with epinephrine 1:100,000. The entire procedure was performed using the “Hard and Soft Tissue” setting. The gingiva was flapped to expose bone using the 0.25 mm spot size with 1% mist and cutting speed between 20% – 50%. Only 0.5 mm of tooth structure was coronal to the alveolar bone. The osseous tissue was removed to establish biologic width and expose tooth structure coronal to bone for proper restoration. The 0.75 mm spot size was used with 100% mist and cutting speed between 30% – 60%. A temporary restoration was placed followed by one suture. The total procedure time was 50 minutes.

Benefits of Solea
With traditional instruments, this procedure is typically completed with a scalpel and high-speed handpiece with burs.Due to Solea’s precision, a much smaller flap is needed than with traditional instruments. Therefore there is much less blood, resulting in a clean surgical site that allowed this procedure to be completed successfully. Rapid healing was observed. As the radiograph and photos show, excellent conditions for restoration were established. Final crown demonstrated excellent margins and evidence of proper biologic width.