Alma CO2 Surgical used for Frenectomy Procedures in Toddlers Eliminating the need for Surgical Sutures

Alma's CO2 surgical laser is being successfully used to perform Frenectomy procedures in toddlers in the Department of Oral and Maxillofacial Surgery in RAMBAM Medical Center.

Lingual and Labial Frenectomy procedures, reside in the field of oral and maxillofacial surgery, are the removal of a small fold of tissue in order to restore normal gums and tongue function and mobility. Abnormal function of the tongue can damage oral, nutritional, speech and dental developments in infants and children.

Although considered safe, this procedure holds a few risks. One of the main concerns during the removal of restrictive tissue is to avoid nerve damage that can result in permanent severe pain. In addition, with very small babies, there is always the concern of using traditional numbing medicines to provide anesthesia.

Performing the procedure with CO2 laser produces superior results over cold steel procedures. Advantages of laser surgery include high precision , less bleeding pain and scaring, significantly shorter procedure time (down to only a few minutes at times), no need of surgical sutures (as the laser induce coagulation), and the ability to easily performed in an out-patient setting without the need for general anesthesia.

Dr. Omri Emodi

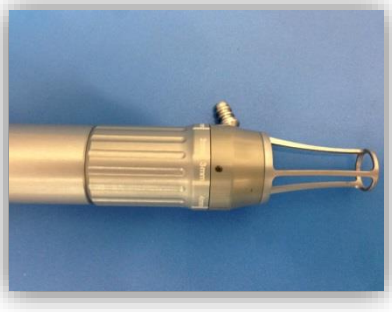
Dr. Emodi*, uses Alma CO2 surgical laser to preform Frenectomy procedure in Rambam Medical Health Center, says "****Frenectomy procedures in young children and infants holds both medical and life changing aspects by allowing for normal development and social interaction. The CO2 laser technique holds great benefits as it generates less to no bleeding and demonstrates faster healing. In particular, Alma's set of surgical accessories and tools allows a for more precise and accurate procedure performance".***

Alma Lasers™ | Surgical

Alma Surgical provides the most advanced set of tools to support physicians when performing delicate procedures that requires precision and accuracy. From the oral back stop, preventing perforation of distal tissue to Variable Spot Size (VSS), allowing physician to set the density focus range between 1-4mm (focus- defocus action) to better define treatment area and supporting coagulation process.

Oral Back-stop handle

Surgical Focused Hand Pieces – various size



Variable Spot Side (VSS) Hand Piece

Case Example:

Lingual Frenectomy – removal of a band of tissue (the lingual frenulum) connecting the underside of the tongue with the floor of the mouth. The procedure was performed in order to correct patient's speaking development difficulties. The physician applied continuous mode with 2.0 watt, demonstrated minimal bleeding and required no surgical sutures.

Patient Pre-Procedure

Patient Immediately Post-Procedure

Patient One Week Post Procedure – Optimal wound healing

Case Example:

Labial Frenectomy- remove of tissue access inside the middle of upper lip, the procedure was performed to prevent the release of the upper lip from the gums and to prevent diastema (space between the front teeth). The procedure was performed in continuous mode with 2.0 watt, demonstrated minimal bleeding and required no surgical sutures.

Labial access tissue

Immediately post procedure