

89 Radiofrequency-Assisted Vulvovaginal Rejuvenation

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Abstract

Labioplasty has increased in popularity over the past 10 years. Although traditional labiaplasty has a high satisfaction rate (>90%) many patients prefer minimally invasive approaches and downtime. The radiofrequency-assisted labiaplasty procedure uses thermal energy to contract labia majora and minora, avoiding traditional labiaplasty incisions and downtime.

Keywords: Labiaplasty, minimally invasive labiaplasty, radio-frequency, vulvovaginal rejuvenation

Key Points

- Traditional labiaplasty has been associated with potential complications such as dehiscence, hematoma, flap necrosis, narrowed introitus, pain, and asymmetry.
- Minimally invasive techniques such as radiofrequency (RF) have emerged as viable alternatives to traditional labiaplasty through a temperature controlled bipolar mechanism to heat tissues to target temperatures of 68 °C internally and 38 °C externally. This controlled energy delivery leads to an inflammatory cascade initiating neocollagenesis angiogenesis, and elastin remodeling over the subsequent 3 to 4 months.

89.1 Preoperative Steps

- A detailed medical history and physical is obtained on all patients prior to treatment. Exclusion criteria include: open wounds, active infection, dermatologic conditions, bleeding disorders, immunocompromised state.

89.2 Operative Steps

- Access points are injected at the caudal aspect of each labia (majora and minora) with 2.5 cc of local anesthesia (1% lidocaine with epinephrine). Next, an 18-gauge needle is used to create an access incision. In each treatment site 20 to 40 cc of tumescent solution is infiltrated (50 cc of 2% lidocaine, 1.5 mg epinephrine per liter of lactated Ringer's solution).
- Hydrosoluble lubricating gel is placed over the labia to improve transduction between the two ports of the RF device.
- The RF settings include a controlled internal temperature cutoff at 68 °C and 38 °C externally.
- The bipolar RF cannula is placed into the access port and moved in a radial cranio-caudal motion until the tissues reach target temperature (► Fig. 89.1).
- Fractional RF can contribute additively by producing a resurfacing and soft tissue tightening from the skin surface at adjustable depths (► Fig. 89.2).

89.3 Postoperative Care

- The usual post-op course involves some edema and ecchymosis. This typically resolves in 2 to 3 weeks.

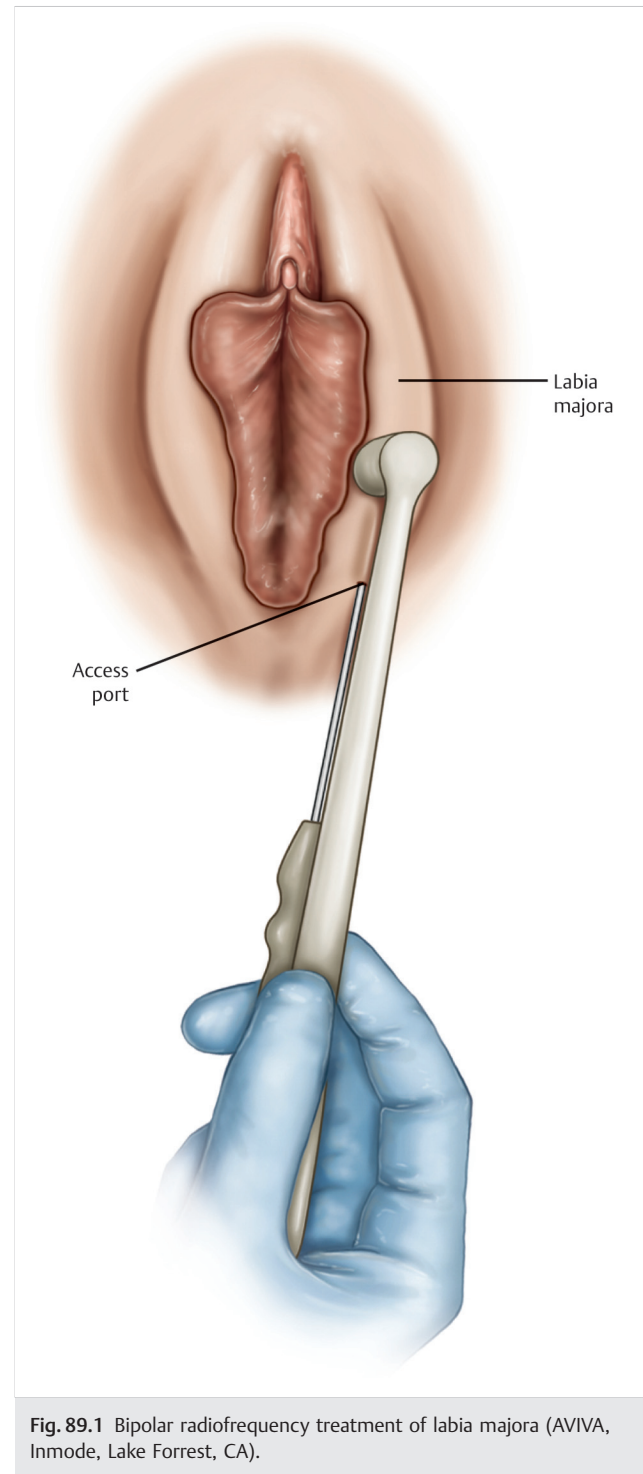


Fig. 89.1 Bipolar radiofrequency treatment of labia majora (AVIVA, Inmode, Lake Forrest, CA).

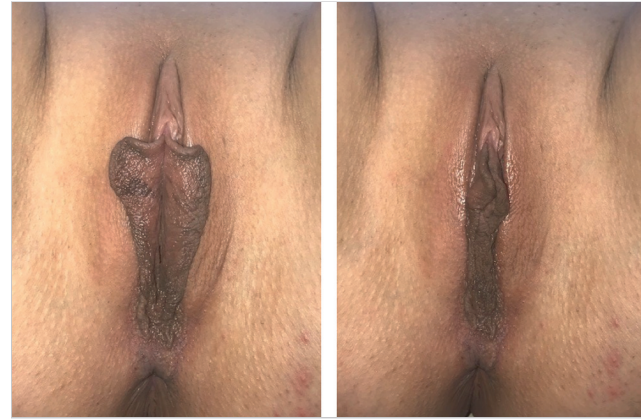
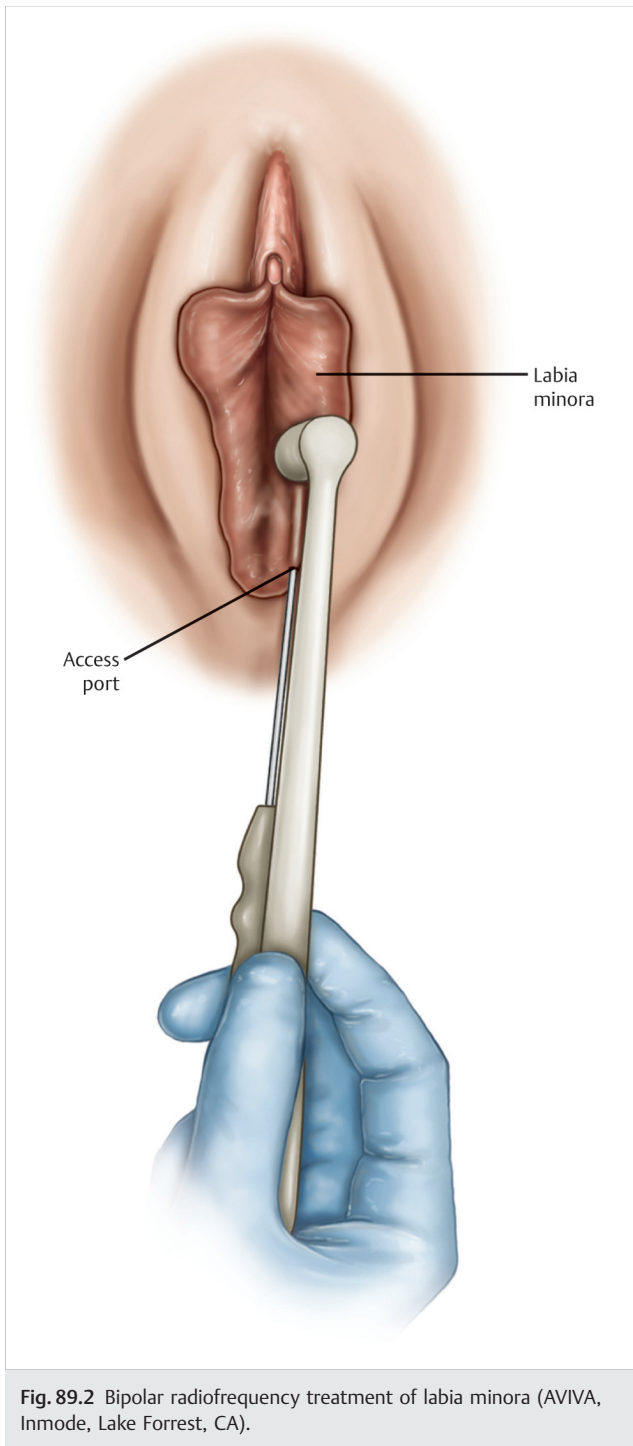


Fig. 89.3 Preprocedure and postprocedure result at 6 months after a combination of bipolar radiofrequency (AVIVA; InMode) and fractional radiofrequency are shown (Morpheus8; InMode).

- There is no need for an elaborate dressing as the incisions are 18-gauge needle access points that will seal on their own.
- Most patients return to work the next day.

89.4 Case Example

Preprocedure and postprocedure result at 6 months after a combination of bipolar RF (AVIVA; InMode) and fractional RF (Morpheus8; InMode) are shown (► Fig. 89.3).

89.5 Conclusion

Treatment of labia hyperplasia and laxity with bipolar RF may potentially fill a treatment gap of females seeking aesthetic and functional improvements without surgical labiaplasty. A powered prospective randomized double blinded study is needed to further elucidate the role of this technology.

See **Video 89.1** and **Video 89.2**.

Further Readings

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