Fully one in three women older than 45 will present with a pelvic health concern during their lifetime, and this number increases to one in two among women older than 65. Pelvic health issues can include sexual problems such as loss of libido, vaginal atrophy, and anorgasmia. Other issues may include stress urinary incontinence (SUI) and laxity due to childbirth. Despite the prevalence of these concerns, women remain reticent to come forward and feel that they must simply live with these vexing and quality-of-life robbing conditions. Until recently the only treatments for pelvic health issues were surgical or involved systemic medications such as hormones that confer their fair share of side effects. In recent years, however, we have seen an advent of energy-based devices that improve vaginal health without surgery and the downtime and risks that travel with it. Currently available “vontouring” technologies include CO₂-based lasers (FemiLift - Alma Lasers, MonaLisa Touch - Cynosure Lasers, FemTouch - Lumenis, and CO2RE Intima - Syneron-Candela), Er: YAG-based lasers (IntimiLase - Fotona, Juliet - Asclepion, and Action II Petit Lady - Lutronic Corp), and RF-based energy devices (ThermiVa - ThermiAesthetics, Protégé Intima - BTL Aesthetics, ReVive - Viora, and Viveve - Viveve Medical).

**DESIGN, SETTING, AND PARTICIPANTS**

We conducted a pilot study of CO₂ laser resurfacing of the vagina with the Alma FemiLift at the Juva Skin &
Laser Center in New York City from Oct. 2015 through Feb. 2016. We surveyed 12 women aged 25 to 65 about symptoms related to SUI, vaginal dryness/recurrent urinary tract infections, vaginal laxity, and vaginal atrophy. Study participants underwent treatment with CO₂ laser resurfacing of the vagina (not the labia) with the Femilift. Three treatments, at four-week intervals, were recommended. Post-treatment instructions included no sexual intercourse or tampons for three days after the procedure. In addition, women were told to notify the clinic should they have any bleeding, fever, or other unusual side effects. The participants were surveyed again after they completed the treatment protocol.

RESULTS

We found that SUI, dryness, atrophy, and laxity were common concerns in our patient population before treatment. About 25 percent of study subjects were under the age of 40, which illustrates that these are not just issues for older women. Many patients reported SUI while laughing, sneezing, coughing, and during exercise. All of our patients reported statistically significant vaginal tightening, lubrication, and improvement in SUI following treatment. Many women also noted more intense orgasms after Femilift treatment.

CONCLUSIONS

The protocol of three treatments a month was well tolerated. Each treatment took about 15 minutes with no downtime. The treatment was extremely safe with no adverse effects noted. Alma FemiLift allows for selective targeted treatment areas for maximum thermal efficacy and penetration depth. It is easy to learn, and routinely performed by our nurse practitioner at the Juva Skin & Laser Center.

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NEW TECHNOLOGIES FOR “VONTOURING”

- CO2-based lasers
  - Femilift- Alma Lasers
  - MonaLisa Touch- Cynosure Lasers
  - FemTouch- Lumenis
  - CO2RE Intima- Syneron-Candela

- Er:YAG-based lasers
  - IntimiLase- Fotona
  - Juliet- Asclepion
  - Action II Petit Lady- Lutronic Corp

- RF-based energy devices
  - ThermiVa- ThermiAesthetics
  - Protégé Intima- BTL Aesthetics
  - ReVive- Viora
  - Viveve- Viveve Medical

The perimenopause patient histology above shows the vagina mucosa before FemiLift/Pixel CO2 treatment stained with haematoxylin and eosin (H&E) and 60 days following FemiLift treatment showing thicker epithelium and the filling of the ablated tissue having a healthy improved tissue that restored metabolic trophism and dynamics of the whole epithelium.