FDA APPROVES BOTOX COSMETIC TO TREAT CROW’S FEET LINES IN ADULTS

Although it’s been used to treat crow’s feet for some time, Botox Cosmetic (onabotulinumtoxinA, Allergan, Inc.) now has FDA approval to temporarily treat moderate to severe lateral canthal lines. The safety and efficacy of Botox Cosmetic as a treatment for crow’s feet lines were demonstrated in two randomized, multi-center, placebo-controlled clinical trials, according to Allergan. The studies enrolled more than 1,350 patients, with 833 of them receiving treatment with Botox Cosmetic. The trial demonstrated that Botox Cosmetic was an effective treatment compared to the control group, which did not receive Botox Cosmetic treatment.

“I often see patients who are bothered by their crow’s feet lines, so I am very pleased that Allergan has conducted additional research to receive FDA approval of Botox Cosmetic for this new indication. Based on the clinical evidence, I can now provide my patients with an FDA-approved option to address the crow’s feet lines that develop around the eyes,” says Steven Dayan, MD Clinical Assistant Professor at the University of Illinois and a clinical investigator in the Botox Cosmetic crow’s feet clinical trials. Dr. Dayan is also the Co-Chief Editor of Modern Aesthetics.

While off-label use of botulinum toxins and other injectable treatments is fairly commonplace in aesthetic medicine, Dr. Dayan believes the new indication is a significant development. “We can now tell patients that this is a treatment that has proven to be safe and effective through an enormous amount of research and trials that led to the stamp of FDA approval,” he notes. This comes with a certain level of comfort for both patients and physicians, according to Dr. Dayan. “Increasingly, patients are asking for certifications and credentials when it comes to cosmetic procedures, so this approval opens new doors for patients as well as physicians who might be hesitant to inject off-label.”

The new indication represents the first new aesthetic indication for Botox Cosmetic since it was approved in 2002 for the temporary treatment of glabellar lines in patients between the ages of 18 and 65 years. Whether the approval sets a new precedent for potentially more expanded applications and indications of cosmetic injectable treatments remains to be seen. Nevertheless, Dr. Dayan observes that the approval testifies to the versatility of Botox Cosmetic as a reliable agent in the field of cosmetic medicine. “The considerable investment of resources required to seek an additional indication for a drug that’s already on the market is not something we see often, and it reflects much about the safety of the product as well as the comfort and reliability of its use in our field,” says Dr. Dayan.

ResurFX for M22 Platform from Lumenis Receives FDA Clearance

The FDA has granted 510(k) clearance for ResurFX, a new fractional non-ablative laser module from Lumenis. ResurFX is the latest application module for the M22 platform, expanding its capabilities to perform true fractional non-ablative skin resurfacing. Learn more on p. 25 of this issue.

ResurFX uses a 1565nm fiber laser and a CoolScan scanner, which, according to Lumenis, enables a homogeneous and uniform pattern of coagulation columns, and requires only one pass. This feature saves practitioners’ time and helps protect the patient’s skin. The scanner also allows the user to choose from more than 600 combinations of shape, size, and density for optimal treatment and results. CoolScan uses a proprietary algorithm that places each fractional spot in a controlled, non-sequential manner allowing the tissue to relax between pulses and providing protection from overheating.

“With ResurFX, we have a solution that improves facial and body skin tone and texture with minimal discomfort and downtime,” said Dr. Arielle N. B. Kauvar, MD, Director, New York Laser & Skin Care, in a statement.

The M22 platform combines three gold-standard technologies covering more than 30 indications in one system: intense pulsed light with optimal pulse technology, multi-spot Nd:YAG, and now the ResurFX for a complete aesthetic workstation.
VelaShape III Platform Receives FDA Clearance for Abdominal Circumferential Reduction

VelaShape III, Syneron’s new non-invasive body shaping platform, received FDA clearance and CE mark approval for temporary reduction in circumference of the abdomen.

“In a VelaShape III clinical study of 42 patients, an average abdominal circumference reduction of 2.6 cm was recorded post-10 weeks following a single treatment,” said Ruthie Amir, MD, Global Vice President of Clinical Affairs, in a release. The study showed that 100 percent of patients responded to the single treatment protocol with an abdominal circumference reduction of at least 1.5 cm in as little as two weeks.

According to the company, VelaShape III comes equipped with many new features designed to significantly reduce the number of treatments while reducing the percentage of non-responders. The new features include increased radio-frequency power of up to 150W, real-time feedback mechanisms for consistent RF delivery independent of tissue variations, a built-in, real-time tissue surface temperature sensor, and a complete range of new tip configurations for various body locations.

FDA Approves Mentor MemoryShape Breast Implants

Designed with a teardrop shape that Mentor says is much like the silhouette of a natural breast, Mentor MemoryShape Breast Implants now have FDA approval. They have been approved for more than a decade outside of the US, and are filled with a uniquely formulated cohesive gel that enables shape retention, while providing a natural silhouette and youthful firmness. The MemoryShape Implants are indicated for breast augmentation in women at least 22 years old and for breast reconstruction and are available in a range of sizes.

The open-label, multi-center Mentor MemoryShape (CPG Core) Breast Implant Core Study consists of 955 patients who undergo post-surgery follow up annually for 10 years. This study is designed to assess the safety and effectiveness of these implants in primary augmentation, revision, and reconstruction patients. The implants were shown to be safe and effective in reconstruction and augmentation patients at six years, with a low rate of adverse events. Overall, patients also had high satisfaction rates with their breast appearance, and 97 percent of patients who have MemoryShape Implants reported they would repeat the procedure.

Breast Enhancement Through Fat Transfer: Research Continues

Research on the safety and efficacy of breast enhancement through fat transfer is continuing in order to further evaluate benefits and risks. While there are currently no statistics on the popularity of lipoinjection to the breast, 2012 statistics from The American Society for Aesthetic Plastic Surgery (ASAPS) show that fat transfer, as a whole, has grown in popularity almost 90 percent since 1997.

Breast enhancement using fat grafts employs fat suctioned from the patient’s abdomen, thighs, or other fatty areas to increase the size of the breast or for breast defects or abnormalities, including enhancing the appearance after breast augmentation.

BROW MODIFICATION ENHANCES RHINOPLASTY RESULTS

While plastic surgeons have long recognized that chin augmentation concurrent with a rhinoplasty results in improved facial balance, few physicians consider the benefits of combining a rhinoplasty with brow modification. Researchers dissected the nose and central forehead area in seven fresh cadavers at the time of autopsy to understand the anatomical relationship between the various muscles in the radix/glabellar region and to assess the muscle resection occurring in the clinical procedures. The authors also reviewed the charts of 24 patients, aged 14 to 60, who underwent combined rhinoplasty and brow modification with the senior author during a two-year period (July 2010 to June 2012). Younger patients underwent a central browlift (CBL) with screw fixation, while older patients (ages 34-60 years) underwent full five-incision endoscopic forehead lifting. There were 12 primary and 12 secondary procedures in the series; 13 patients underwent CBL and 11 had EFL. The mean follow-up was 18 months. One patient had a persistent fluid accumulation in the glabellar region, which required drainage. One patient requested additional refinement of her nasal tip. The authors found that modification of the central brow can dramatically change the aesthetic polygons of the nose/glabellar region. A CBL with radix/glabellar muscle excision is important in younger patients who need a well-defined nasion and older secondary patients who feel that the upper third of their nose is still heavy. The authors noted that a full EFL can enhance the facial appearance of older patients in whom a rhinoplasty alone would have a modest impact.

News & Trends

Research Briefs

16-Year Analysis of Cosmetic Procedures in the United States

To examine changes in the frequency of cosmetic dermatologic procedures performed in the US and the physician specialties performing them, researchers reviewed the volume of cosmetic procedures performed by physician specialties and the types of cosmetic procedures performed from data from the National Ambulatory Medical Care Survey (NAMCS) from 1995 to 2010. The results of this research showed that cosmetic procedures constituted 8.7% of all skin procedures and have increased since 1995 (p<.001). Botulinum toxin injections were the most frequently performed cosmetic procedure and increased at the greatest rate over time. Plastic surgeons performed the largest proportion of cosmetic procedures (36.1%), followed by dermatologists (33.7%), but other specialties have been performing an increasing proportion of cosmetic procedures. The study found that plastic surgeons and other physicians performed the majority of outpatient cosmetic procedures, and that dermatologists performed about one-third of ambulatory cosmetic procedures from 1995 to 2010. The authors noted that the study was limited to the provision of outpatient procedures, and the nationally representative data of the NAMCS is subject to sample bias.


More Research Needed to Examine Safety and Efficacy of Botulinum Toxins for Men

Botulinum toxin continues to be widely used for facial aesthetics, and its use in men continues to increase, according to authors who recently examined sex differences in facial anatomy as well as the number of clinical studies examining the role of sex in botulinum toxin treatment through a Medline search. The authors found substantial facial anatomic differences between the sexes, including increased cranial size, unique cranial shape, greater skeletal muscle mass, higher density of facial blood vessels, and more severe facial rhytids found in men versus women. The review of sex and botulinum toxin treatment identified 17 clinical studies with 5,646 total participants, of whom 629 (11.1%) were male. Two studies accounted for sex in study design or subgroup analysis. Both studies found abobotulinumtoxinA to be less effective in men. An additional study examining onabotulinumtoxinA dosing found that higher doses in men than the doses typically used in women were more efficacious with no increase in adverse events. The authors conclude, “Despite sex differences in facial anatomy, the use of botulinum toxin in men is inadequately studied with regard to dosing, efficacy, and safety.”


My New Favorite Thing: BLUNT CANNULAS FOR FILLERS

“Blunt Cannulas for filler placement have changed how patients tolerate the injections as well as minimized the swelling and bruising sometimes associated with sharp needles. Especially useful for lips, tear troughs, and hands, fillers can be placed through single puncture sites. Topical anesthesia is the only anesthetic utilized, even in the lips, and the discomfort is minimal. Even more importantly, swelling and bruising are dramatically lessened. Patients can often be seen in public within several hours of an injection session.”

—Miles Graivier
reconstruction and softening the look of existing implants. Lipoinjection of the breasts may offer patients permanent breast augmentation with a natural look and feel and the benefit of body contouring through liposuction.

Long-term safety and efficacy data, and the effect of the procedure on breast cancer screening using mammography, are still being evaluated in clinical studies. Concerns about fat grafting for breast enhancement include typically low survival rates of the transferred cells, development of cysts and calcification, and tissue scarring. It is possible for fat grafting to produce changes in the breast that may be deemed suspicious on examination or on mammography, which may require further testing to determine if the findings are related to breast cancer. This procedure offers mostly a one cup size enlargement and will depend on the amount of spare fat the patient has.

Phase III Trial Results for ATX-101 Demonstrate Efficacy in Reduction of Submental Fat

Two recent Phase III trials—REFINE-1 and REFINE-2—met all primary and secondary endpoints for Kythera’s novel injectable fat reducing agent ATX-101, the company reports. The two pivotal Phase III trials compared the efficacy and safety of a 2mg/cm² dose of ATX-101 versus placebo for the reduction of submental fat. REFINE-1 and REFINE-2 are two identical multicenter, double-blind, randomized, placebo-controlled trials that enrolled more than 1,000 individuals with moderate to severe submental fat in 70 centers in the US and Canada. Validated clinician- and patient-rating scales were used to evaluate primary efficacy endpoints, assessed 12 weeks after the last treatment.

In the REFINE-1 study (Study ATX-101-11-22), 70.3 percent of ATX-101 (2mg/cm²) REFINE-1 subjects demonstrated a simultaneous improvement of at least one grade from baseline on the Clinician-Reported Submental Fat Rating Scale (CR-SMFRS) and Patient-Reported Submental Fat Rating Scale (PR-SMFRS) vs. 18.7 percent in placebo (p<0.001). And, 13.4 percent of ATX-101 (2mg/cm²) REFINE-1 subjects demonstrated a simultaneous improvement of at least two grades from baseline on the CR-SMFRS and PR-SMFRS vs. 0 percent in placebo (p<0.001).

In the REFINE-2 study (Study ATX-101-11-23), 66.9 percent of ATX-101 (2mg/cm²) REFINE-2 subjects demonstrated a simultaneous improvement of at least one grade from baseline on the CR-SMFRS and PR-SMFRS vs. 22.4 percent in placebo (p<0.001). Also, 18.7 percent of ATX-101 (2mg/cm²) REFINE-2 subjects demonstrated a simultaneous improvement of at least two grades from baseline on the CR-SMFRS and PR-SMFRS vs. 3.2 percent in placebo (p<0.001).

An assessment of the trials’ first secondary endpoint showed 46.6 percent of REFINE-1 and 40 percent of REFINE-2 patients achieved a pre-defined, statistically significant reduction in the volume of their submental region vs. 5.4 and 5.1 percent for placebo, respectively (both p<0.001), as measured through MRI. Subjects also rated the visual and psychological impacts of submental fat using the PR-SMFIS, which assessed whether they perceived themselves to be happier, less bothered, less self-conscious, less embarrassed, younger, or less overweight after treatment with ATX-101. Statistical significance was achieved for the change from baseline in PR-SMFIS with 3.63 vs. 1.14, and 3.47 vs. 1.48, for ATX-101 (2mg/cm²).
and placebo for REFINE-1 and REFINE-2, respectively (p<0.001 for both). Each individual component within the PR-SMFIS also demonstrated statistical significance vs. placebo in both trials (p<0.001 for all PR-SMFIS measures).

Positive Phase IIb RESET Trial Results for LIPO-202 for Abdominal Body Contouring

Lithera, Inc., announced positive results from its Phase IIb RESET clinical study of LIPO-202 (Salmeterol Xinafoate for Injection), a novel, physician-administered, injectable pharmaceutical product designed to produce localized flattening of the abdominal treatment area through the non-ablative reduction of subcutaneous fat.

RESET was a 513-patient, multicenter, randomized, placebo-controlled Phase II clinical trial designed to measure safety and efficacy of three different doses of LIPO-202 (0.4, 1.0 and 4.0 micrograms (total dose)) in healthy, non-obese patients with abdominal bulging due to excess subcutaneous fat. Patients received 20 1mL subcutaneous injections of LIPO-202 or placebo into a defined abdominal treatment area (~400cm²) once per week for eight weeks.

LIPO-202 showed excellent safety and tolerability at all doses in RESET. Adverse events with LIPO-202 were generally mild and transient and did not differ in incidence or severity across all doses tested compared to placebo; the most common adverse effects were injection site reactions. Ninety-two percent of patients completed the RESET trial per protocol and no patient withdrew due to an adverse effect. In terms of efficacy assessments, the 0.4 microgram total dose (20x0.02 microgram/mL) was identified as optimal. Responder analyses using a composite endpoint of a patient self-assessment (Five-point verbal Patient Global Abdominal Profile Scale—P-GAPS) plus a clinician rating of abdominal contour (Six-point visual Clinician Photo-numeric Scale—CPnS) demonstrated significant efficacy of LIPO-202 at the 0.4 microgram dose versus placebo (p<0.05) in RESET. Significant efficacy was demonstrated with this composite endpoint using a clinically meaningful one-point improvement on the P-GAPS or a two-point improvement on the P-GAPS, both in combination with a two-point improvement on the CPnS. Patients treated with 0.4 micrograms of LIPO-202 also reported an average of a two-point improvement on a seven-point satisfaction rating scale. Patients in this treatment group showed a mean reduction in circumference at the umbilicus of 1.6 cm (versus 0.65 cm for placebo; p=0.001) using a laser-guided manual tape measurement technique. The average reduction in abdominal volume in the treatment zone was 192cc for the 0.4 microgram LIPO-202 dose versus 68cc for placebo (p=0.002). Treatment effects were enhanced in the subgroup of patients who remained weight neutral or who lost weight during the nine-week trial, consistent with the target patient population for LIPO-202. The mean reduction in abdominal circumference and volume in the treatment area was 2.7 cm (p<0.001) and 329 cc (p<0.001), respectively, for the 0.4 microgram LIPO-202 dose.