The Heart and Soul of Plastic Surgery

Rudi Unterthiner, MD, FICS, on the elusive "spiritual piece of the puzzle"
Dysport Versus Botox

Several practitioners sound off about using Dysport, as well as similarities and differences to Botox Cosmetic

By Shae Waddell

ow that Medicis' wrinkle remover Dysport has been on the market for a few months, how does it compare to Botox Cosmetic? Both products are derived from botulinum toxin Type A, both are used to relax muscles in patients, both must be injected every 3 to 4 months, both have gradual onset, and both have been in use for years—Botox in the United States, Dysport in Europe (as Reloxin).

Botox and Dysport are both FDA-approved for cosmetic uses in the glabellar frown lines and can also be used for other parts of the face and body.

Recently, PSP spoke with several physicians about the differences between the two products from a clinical perspective and in how their patients have responded to the choice they now have between Dysport and Botox.

“As Dysport is a smaller-sized molecule, the unit measurement is different from Botox. The conversion ratio is usually between 2.5 to 1 and 3 to 1. We use a 2.5-to-1 ratio, so we inject 50 units of Dysport for an area where we would have used 20 units of Botox,” according to Terry Perkins, MD, a veteran cosmetic surgeon who has been practicing for more than 30 years and is the founder of the Cosmetic Surgery Center and Evolutions Medical Spa, both of which are based in Santa Barbara, Calif. In 1999, Perkins was one of only 16 doctors in the United States to conduct a study leading to the FDA approval of Botox for cosmetic uses.

“In terms of the cost to the physician, Dysport is about 10% less per vial than Botox ($475 versus $525),” Perkins continues. “Dysport is also a better value because with the standard conversion—2.5 units of Dysport per 1 unit of Botox—you receive 20% more product per vial. That is enough to treat an extra patient.”

Some physicians noted that Dysport’s introduction has been good for competition in a marketplace in which Botox Cosmetic has monopolized the toxin-based injectables field for some time.

“Dysport has recently entered the market, and there are three to five other neurotoxins in the FDA pipeline. The bottom line is that doctors and patients will have numerous options in the future when it comes to administering and receiving a neuromodulator,” says Joseph Niamtu III, DMD, a cosmetic surgeon in Norfolk, Va., and a Diamond Level provider of Botox.

THE CLINICAL SIDE

“There is a quicker onset of action using Dysport,” Perkins says. “One to 2 days versus 3 to 4 days using Botox. The patients note that when injected there is less stinging with Dysport than with Botox.”

Although there are subtle differences between Dysport and Botox—protein coats, molecular properties, etc.—they are essentially the same drug, Niamtu says. “Coke versus Pepsi is the way that many surgeons explain the difference to inquiring patients. The main difference is that the effective unit measurement between these two products is different.”

Botox units and Dysport units are not equivalent measurements, according to Niamtu. “Initially, surgeons were told that it takes 2.5 units of Dysport to equal 1 unit of Botox. I personally disagree with this equation, and my clinical experimentation has shown 3 Dysport units to equal 1 Botox unit. So, in areas where I give 20 units of Botox, I would inject 60 units of Dysport,” he says. “It is important to realize this ratio, as many surgeons and patients will want to try new products and they must have an equipotent dosage to compare ‘apples to apples’ for clinical effect. If a surgeon uses smaller quantities of Dysport, the comparison is unfair. Just remember, 3 to 1 will get it done.”

Steven H. Dayan, MD, a cosmetic surgeon in Chicago, says, “The most well-done head-to-head trials have shown a unit conversion ratio of less than 1 to 3 Botox to Dysport. The products, both being serotype A, act quite similarly. Controversy regarding different diffusion properties, time to onset, duration of efficacy, and unit-conversion ratios has resulted in multiple publications and discussions, but still no consensus.”

The two products have very similar profiles, according to Laurie A. Casas, MD, clinical associate professor of surgery at the University of Chicago Pritzker School of Medicine. “Dysport appears to be slightly less painful at the point of injection,” she says, “and Dysport appears to have a slightly quicker onset, especially in the forehead wrinkles. Both appear to have very similar duration. There is definitely a learning curve that is needed, just like there was for Botox Cosmetic. The products are packaged differently—300 units per vial of Dysport versus 100 units of Botox per vial—and dosed differently. In my first 150 patients, it appears that the patients who have

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Dysport has not made a major impact in our multispecialty practice. Mostly, our use of Dysport has cannibalized Botox sales and has not brought in new toxin patients. Some of this is our doing; that is, telling patients, "Do you want to try a new toxin?" Some established Botox patients have wanted to try it. As [Medics'] direct-to-consumer advertising increases, we hope that new consumers will be brought into the office.

Jason Pozner, MD, FACS
Boca Raton, Fla

**Overall**, the release of Dysport has been good for the economy in the cosmetic surgical arena due to the elevation of patient awareness. Patients still come in and request Botox, not necessarily Botox Cosmetic versus Dysport. As a result, I offer both products to the patient, but I explain that the similarities are [many] and that the differences are minimal. In my opinion, Botox Cosmetic is still the gold standard by which other neuropeptides must measure up to. It is more predictable and seems to last a bit longer. From a cost perspective, it is my opinion that you need a bit more Dysport to match the effects of Botox Cosmetic.

Michael S. Kloaka, DO, FAACS, FACOS
Greensburg, Pa

Dysport has at least increased the options for patients interested in botulinum toxin treatment. Although our practice has not noted an appreciable increase in clients asking specifically for Dysport, we are comfortable enough with its safety profile to offer it in addition to Botox Cosmetic. Clinically, we have noted a slightly decreased time period before onset of action with Dysport compared with Botox Cosmetic, as study data has implied. Overall, our clients have been satisfied with both products.

David S. Kung, MD, FACS
Washington, DC

Dysport being the first competitor to Botox is big news. I always view competition as a good thing that hopefully will benefit the patient. Clinically, some of the myths—such as Dysport needing to be injected in a different way because of diffusion—have been dispelled. The consensus is that the injections are the same [but] using different unit doses. I think it is important to understand that there is no standard unit—units are nonequivalent and are company-specific.

Overall, I find the effect of Dysport somewhat "softer," "more natural," especially in the lateral aspect of the forehead. I am also awaiting the arrival of the next-generation neuropeptides, Xeomin and Purtox. Xeomin will most likely be next, since these are pure toxins without the complicating proteins, so they probably will translate into a slightly different clinical profile.

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price, Casas says, and has also offered rebates directly to patients. This combination makes "Dysport very attractive to the patient who is regularly treated with neurotoxin," she says. "All in all, Dysport appears to be a very equivalent product, but it can be priced better. This has been very helpful, especially in this economy, to convert patients to using Dysport because it is another safe, reliable, predictable, and more cost-effective neurotoxin."

Niamtu agrees, adding that less expensive toxin-based products may indeed level the playing field. "It seems that emergent companies are not interested in price competition," he says. "Personally, I was surprised when Dysport came out at a pricing that was so close to Botox. Especially in this economy, patients really look at the cost of procedures, and a lower cost with equal results—or results that are close to the leader—could change the tide."

The introduction of emerging products into a market dominated by a single vendor’s brand—in this case, Allergan and Botox Cosmetic—is a true marketing challenge for Medicis and the other soon-to-be-approved injectables. "Tactics to gain ground with cosmetic products include gaining trust and usage by established experts, making the product more affordable than the dominant one, and having a product that has some clinical benefit," Niamtu claims. "All of the new neuromodulators will have to be creative in these requisites."

CONCLUSION

Both Botox Cosmetic and Dysport are excellent treatments, Perkins says. "I have been doing Botox for almost 15 years, so there is definitely a comfort level there. I would like to have a few more months working with Dysport—it’s still only been available for general use since June—and treat a few hundred more patients. However, my initial impression is that I think I may end up preferring Dysport. It stings less, has a quicker onset of action, and is a better value for both the physician and patient."

Shae Waddell is a contributing writer to PSP. She can be reached at PSPeditor@allied360.com.