

Dysport Versus Botox

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

By Shae Waddell

Now 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 both 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 into 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



had Botox previously need 2.0 to 2.6 units of Dysport to every 1 unit of Botox. Because I always have patients return 10 to 14 days after their first injection with a product to assess their outcomes, I have had the opportunity to develop this conversion."

Although not all of the physicians contacted for this article agree on the exact unit conversion, all said that Dysport is as safe and effective as Botox. However, are they the same in terms of how long they last? "The length of time that the Dysport treatment lasts seems to me to be comparable," Perkins says. "I have had some patients find that Dysport lasts longer and others who feel that Botox lasts longer. We typically tell patients that we expect similar results with both neuromodulators, educate them about the differences in terms of onset of action and price, and then let them decide which product they prefer. I am not actually trying to push someone one way or the other. That said, most of our patients

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 neurotoxins 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. Kluska, DO, FAACS, FACOS
Greensburg, Pa

decide to try Dysport at least once to see how it works for them."

None of the physicians contacted for this article reported anything but mild side effects in patients who received Dysport injections—or Botox Cosmetic, for that matter.

Perkins has not seen any substantial negative effects from the use of Dysport. "Other than localized stinging during the

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 [Medicis'] direct-to-consumer advertising increases, we hope that new consumers will be brought into the office.

Jason Pozner, MD, FACS
Boca Raton, Fla

injection itself, occasionally you will get someone who will get a bruise," he says. "However, the majority of people have very little in the way of downside. Brow ptosis or upper lid ptosis is a possible side effect, but that is typically not an issue if the neuromodulator—either Dysport or Botox—is injected into the right area with the right dose."

When it comes to definitive clinical proof of Dysport's effectiveness versus Botox Cosmetic, the jury is still out. "A large, randomized, well-controlled, designed, and evaluated head-to-head trial comparing the cosmetic clinical efficacy of the two remains to be done," Dayan says. "However, it will likely be via clinical experience and its use in our practices that the differences between the two will best be highlighted. While Botox, the most popular cosmetic medical procedure in the world, has proven its benefits and has well-defined dosing parameters, Dysport's efficacy and ideal dosing requirements outside the glabellar area are still yet to be clearly defined."

Thus far, the most significant difference between the two products is price. "The products are priced at a 1-to-3 ratio," Dayan says, adding that 100 units of Botox costs him \$525 and 300 units of Dysport costs \$475.

"Assuming the products have similar efficacy and safety, and if the unit conversion ratio is less than 1 to 3, then Dysport will be the more economical choice. However, if the ratio is greater than 1 to 3 then Botox will be the better economic choice. This is also devoid of any rebate or promotional programs that the manufacturers may put into place. Time will determine each product's role in our expanding cosmetic world, but the real interesting discussion is yet to

occur. Imagine when we have four neurotoxins approved or—dare we think—how far off until we will be debating the pros and cons of a topical version?"

PATIENTS WILL TRY SOMETHING NEW

The consumer is the ultimate arbiter of how well a new product performs against the competition. And some patients have asked for Dysport by name in many of the practices we contacted.

"I have patients that want Dysport because it is new, some want it because it is cheaper, and some are not interested in switching brands," Niamtu says. "We live in a very brand-loyal society, and it seems that people are sup-

posed to have a favorite liquor, beer, sports team, and I guess neuromodulator. I use far more Botox than Dysport, but my clinical experience is that they are exactly the same onset, effect, and duration when used in an equipotent manner. I have colleagues that say they see big differences and only use Dysport for a given application."

Perkins notes that some of his patients

have asked for Dysport in recent months. "What will be interesting in a year from now is to talk again and see if the switch from Botox to Dysport has persisted," he muses. "We have had a handful of people who have tried Dysport and decided they prefer Botox. Others have indicated a preference for Dysport. However, the majority of patients feel both neuromodulators work well for them."

Medicis has launched Dysport with a competitive

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's 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 neurotoxins, Xeomin and Purtox. Xeomin will most likely be next, since these are pure toxins without the complexing proteins, [so they] probably will translate into a slightly different clinical profile.

Z. Paul Lorenc, MD, FACS
New York City

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

In central Illinois, Dysport has not caught on quite yet and, therefore, not many patients are inquiring about it. I think publicity is still necessary for Dysport since many here still think the only choice is Botox.

Chad Tattini, MD
Bloomington, Ill

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. "But 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 name brand—in this case, Allergan and Botox Cosmetic—is a true marketing challenge for Medicis and the other

I have seen a lot of patients who have switched from Botox to Dysport. The main incentive for the switch has been primarily financial, as Dysport is priced about 20% lower than Botox in my practice. Those patients, however, have been very happy with their results from Dysport. I would estimate that at least 50% of patients who have tried Dysport have stuck with it.

Anthony Youn, MD, FACS
Troy, Mich

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

Patients have had a mixed response. Some still swear by the Botox, while a few others have claimed that Dysport worked better for them.

Overall, the difference appears minimal and very subjective from patient to patient.

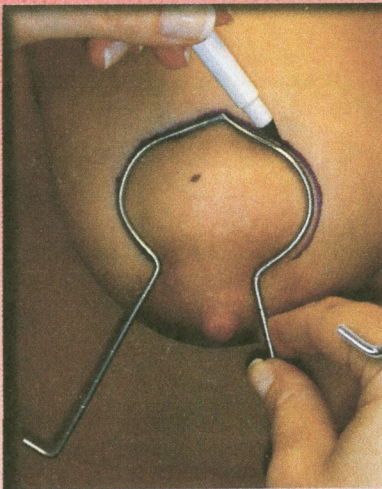
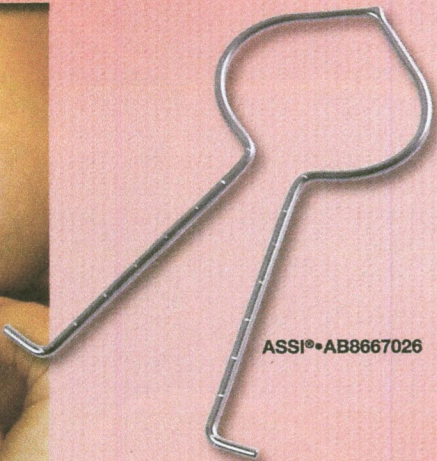
Angelo Cuzalina, MD
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end up preferring Dysport. It stings less, has a quicker onset of action, and is a better value for both the physician and patient." ■

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