



2026 NEW YORK REGIONAL SOCIETY OF PLASTIC SURGEONS ANNUAL RESIDENTS' NIGHT RESEARCH COMPETITION

MONDAY, APRIL 20, 2026

NEW YORK ACADEMY OF MEDICINE

ABSTRACT SUBMISSION TITLE: *D3 - Efficacy and Duration of Low-Dose Versus High-Dose OnabotulinumtoxinA for Upper Facial Rhytids*

Additional Author(s):

Sydney Barone BA; Joesph Talbet MD; Eric Bao BA; Nicholas Bastidas MD; Armen Kevork Kasabian MD

Abstract Presenting Author:

Landis R Walsh, MD

Plastic Surgery Residency Training Program:

Zucker School of Medicine at Hofstra/Northwell

Abstract Text:

PURPOSE:

Low-dose onabotulinumtoxinA (BoNT-A), also known as “low-tox” or “baby-tox”, has gained popularity, particularly among patients seeking subtle, natural-appearing results.¹ Despite its growing demand, there is limited evidence evaluating whether reduced dosing provides comparable efficacy and/or durability to higher dosing regimens. Furthermore, recommendations regarding the amount and frequency of “low-tox” varies widely among sources and with no clear consensus. This study aims to compare the efficacy and longevity of low- versus higher-dose BoNT-A for dynamic upper facial rhytids.

METHODS:

95 female patients were injected with BoNT-A between 2024-2025. Patients were randomly assigned to either high- or low-dose BoNT-A cohorts. The high-dose cohort (HDC) received 4 units/0.1 cc (forehead 16 U; lateral canthal lines 12 U; glabella 12 U), and the low-dose cohort (LDC) received 2 units/0.1 cc (forehead 8 U; lateral canthal lines 6 U; glabella 6 U). Injection sites were marked by a blinded attending physician;

injections were performed by a separate surgical resident or physician assistant. Follow-up occurred at 2, 4, 8, 12, 16, 20, and 24 week time points. Forehead, lateral canthal lines, and glabella wrinkle severity were graded using the Fitzpatrick Wrinkle Scale (FWS) by two independent blinded evaluators. Patients missing more than 2 separate follow up time points were excluded from analysis. Patients were required to be at least 3 months removed from their previous BoNT-A injections to be included in this study.

RESULTS:

85 patients were included in the final analysis (N=37 for HDC, N=48 for LDC). Average age of patients included in analysis was 48.8 years. At baseline, the mean FWS scores were similar between HDC and LDC for forehead, glabella, and lateral canthal lines ($p>0.05$). Both HDC and LDC observed a significant BoNT-A effect at the 2-week timepoint [as compared to baseline] for all study points ($p<0.05$). This significant BoNT-A effect ($p<0.05$) lasted until at least the 20-week timepoint for both HDC and LDC groups. More specifically, the BoNT-A effect was noted to lose significance for both HDC and LDC at week 20 for the glabella and the forehead, and week 24 for the lateral canthal lines ($p>0.05$). There was no significant difference in FWS scores between HDC and LDC at any time points ($p>0.05$).

CONCLUSIONS:

Both high and low BoNT-A dosing appear effective for improving upper facial rhytids. Low-tox doses appear effective for up to 20 weeks. There was no significant difference observed between HDC and LDC BoNT-A effects for up to 24 weeks. Our data suggests that “low-tox” dosing may be effective for improving facial rhytids for selective patients.

1. Baby Botox: What It Is, Benefits and Risks. *Cleveland Clinic Health Essentials*. February 10, 2023 [cited 2026 Feb 20]. Available from: <https://health.clevelandclinic.org/baby-botox>