

ClinicalTrials.gov Protocol Registration and Results System (PRS) Receipt
Release Date: 11/16/2012

ClinicalTrials.gov ID: NCT00284518

Study Identification

Unique Protocol ID: 191622-517

Brief Title: Safety and Efficacy Study of Botulinum Toxin Type A to Treat Lower Urinary Symptoms Due to Benign Prostatic Hyperplasia

Official Title:

Secondary IDs:

Study Status

Record Verification: November 2012

Overall Status: Completed

Study Start: December 2005

Primary Completion: May 2009 [Actual]

Study Completion: May 2010 [Actual]

Sponsor/Collaborators

Sponsor: Allergan

Responsible Party: Sponsor

Collaborators:

Oversight

FDA Regulated?: Yes

Applicable Trial?: Section 801 Clinical Trial? Yes
Delayed Posting? No

IND/IDE Protocol?: No

Review Board: Approval Status: Approved

Approval Number: 12/12/2005

Board Name: Institutional Review Board Services

Board Affiliation: Institutional Review Board Services

Phone: 905-727-7989

Email: germainedance@irbservices.com

Data Monitoring?: Yes

Plan to Share Data?:

Oversight Authorities: Canada: Health Canada

Study Description

Brief Summary: The purpose of this study was to determine the safety and effectiveness of different doses of botulinum toxin Type A in treating lower urinary tract symptoms due to benign prostatic hyperplasia.

Detailed Description:

Conditions

Conditions: Benign Prostatic Hyperplasia

Keywords:

Study Design

Study Type: Interventional

Primary Purpose: Treatment

Study Phase: Phase 2

Intervention Model: Parallel Assignment

Number of Arms: 4

Masking: Double Blind (Subject, Caregiver, Investigator, Outcomes Assessor)

Allocation: Randomized

Endpoint Classification: Safety/Efficacy Study

Enrollment: 380 [Actual]

Arms and Interventions

| Arms | Assigned Interventions |
|---|--|
| Experimental: botulinum toxin Type A 300 U Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. | Biological/Vaccine: botulinum toxin Type A Botulinum toxin Type A 300 U, 200 U or 100 U transperineal or transrectal injection on Day 1. Other Names: <ul style="list-style-type: none"> • BOTOX® |
| Experimental: botulinum toxin Type A 200 U Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. | Biological/Vaccine: botulinum toxin Type A Botulinum toxin Type A 300 U, 200 U or 100 U transperineal or transrectal injection on Day 1. Other Names: <ul style="list-style-type: none"> • BOTOX® |
| Experimental: botulinum toxin Type A 100 U Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. | Biological/Vaccine: botulinum toxin Type A Botulinum toxin Type A 300 U, 200 U or 100 U transperineal or transrectal injection on Day 1. Other Names: <ul style="list-style-type: none"> • BOTOX® |
| Placebo Comparator: Placebo (Normal Saline) Placebo (Normal Saline) transperineal or transrectal injection on Day 1. | Drug: normal saline Normal Saline (Placebo) transperineal or transrectal injection on Day 1. |

Outcome Measures

[See Results Section.]

Eligibility

Minimum Age: 50 Years

Maximum Age:

Gender: Male

Accepts Healthy Volunteers?: No

Criteria: Inclusion Criteria:

- Lower urinary tract symptoms due to benign prostatic hyperplasia
- Enlarged prostate volume by rectal ultrasound

Exclusion Criteria:

- Previous prostate surgery

- Previous or current diagnosis of prostate cancer
- Use of other medications for the treatment of prostatic hyperplasia
- Urinary tract infection

Contacts/Locations

Study Officials: Medical Director
Study Director
Allergan

Locations: Canada, British Columbia
Victoria, British Columbia, Canada

Austria
Vienna, Austria

Czech Republic
Olomouc, Czech Republic

France
Paris Cedex 13, France

Taiwan
Taipei, Taiwan

Germany
Braunschweig, Germany

Italy
Perugia, Italy

Slovakia
Martin, Slovakia

United Kingdom
London, United Kingdom

Australia
Murdoch, Australia

Korea, Republic of
Seoul, Korea, Republic of

References

Citations:

Links:

Study Data/Documents:

Study Results

▶ Participant Flow

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Overall Study

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---------------|------------------------------|------------------------------|------------------------------|-------------------------|
| Started | 97 | 94 | 95 | 94 |
| Completed | 71 | 66 | 67 | 61 |
| Not Completed | 26 | 28 | 28 | 33 |

▶ Baseline Characteristics

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |

| | Description |
|-------------------------|--|
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Baseline Measures

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) | Total |
|--|------------------------------|------------------------------|------------------------------|-------------------------|-------|
| Number of Participants | 97 | 94 | 95 | 94 | 380 |
| Age, Customized [units: Participants] | | | | | |
| 45 to 65 Years | 48 | 46 | 56 | 44 | 194 |
| >65 Years | 49 | 48 | 39 | 50 | 186 |
| Gender, Male/Female [units: Participants] | | | | | |
| Female | 0 | 0 | 0 | 0 | 0 |
| Male | 97 | 94 | 95 | 94 | 380 |

► Outcome Measures

1. Primary Outcome Measure:

| | |
|---------------------|--|
| Measure Title | Change From Baseline in International Prostate Symptom Score (IPSS) at Week 12 |
| Measure Description | The International Prostate Symptom Score is a disease-specific outcome measure based on the American Urological Association Symptom Index. The questionnaire consists of seven items. The patient evaluates their urinary symptoms (incomplete emptying, frequency, hesitancy, urgency, weak stream, straining, and nocturia) during the previous 4 weeks. The total symptom score can range from 0 (no symptoms) to 35 (most severe symptoms). A negative change from baseline indicates improvement. |
| Time Frame | Baseline, Week 12 |
| Safety Issue? | No |

Analysis Population Description

Participants from the intent-to-treat population (includes all randomized participants) with data available for analyses at the given time-point.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 89 | 91 | 94 | 92 |
| Change From Baseline in International Prostate Symptom Score (IPSS) at Week 12 [units: Score on a scale] Mean (Standard Deviation) | | | | |
| Baseline | 21.3 (6.03) | 20.2 (5.80) | 21.5 (5.42) | 20.7 (5.44) |
| Change from baseline at Week 12 (N=86,89,93,90) | -5.6 (7.73) | -6.3 (7.13) | -6.6 (6.87) | -5.5 (6.33) |

2. Secondary Outcome Measure:

| | |
|---------------------|--|
| Measure Title | Change From Baseline in International Prostate Symptom Score (IPSS) at Week 72 |
| Measure Description | The International Prostate Symptom Score is a disease-specific outcome measure based on the American Urological Association Symptom Index. The questionnaire consists of seven items. The patient evaluates their urinary symptoms (incomplete emptying, frequency, hesitancy, urgency, weak stream, straining, and nocturia) during the previous 4 weeks. The total symptom score can range from 0 (no symptoms) to 35 (most severe symptoms). A negative change from baseline indicates improvement. |
| Time Frame | Baseline, Week 72 |
| Safety Issue? | No |

Analysis Population Description

Participants from the intent-to-treat population (includes all randomized participants) with data available for analyses at the given time-point.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |

| | Description |
|-------------------------|--|
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 89 | 91 | 94 | 92 |
| Change From Baseline in International Prostate Symptom Score (IPSS) at Week 72 [units: Score on a scale] Mean (Standard Deviation) | | | | |
| Baseline | 21.3 (6.03) | 20.2 (5.80) | 21.5 (5.42) | 20.7 (5.44) |
| Change from baseline at Week 72 (N=64,61,66,58) | -5.0 (6.50) | -4.1 (6.40) | -4.7 (7.15) | -4.3 (7.15) |

3. Secondary Outcome Measure:

| | |
|---------------------|--|
| Measure Title | Change From Baseline in Peak Urine Flow Rate |
| Measure Description | Urinary flow was determined by uroflowmetry at baseline and various time-points during the study. An increase from baseline indicates improvement. |
| Time Frame | Baseline, Week 12, Week 72 |
| Safety Issue? | No |

Analysis Population Description

Participants from the intent-to-treat population (includes all randomized participants) with data available for analyses at the given time-point.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 95 | 89 | 93 | 91 |
| Change From Baseline in Peak Urine Flow Rate [units: milliliters (mL)/second] Mean (Standard Deviation) | | | | |
| Baseline | 10.4 (2.70) | 10.6 (2.83) | 9.6 (2.57) | 10.1 (2.82) |
| Change from baseline to Week 12 (N=81,80,86,77) | 1.8 (4.65) | 2.0 (4.98) | 2.7 (5.21) | 2.8 (4.74) |
| Change from baseline to Week 72 (N=59,56,64,53) | 2.0 (4.67) | 2.4 (5.18) | 2.0 (4.07) | 2.3 (4.31) |

4. Secondary Outcome Measure:

| | |
|---------------------|---|
| Measure Title | Change From Baseline in Total Prostate Volume |
| Measure Description | Measurement of the prostate volume was performed via transrectal ultrasound at baseline and various time-points during the study. The prostate gland was scanned and the volume was calculated using the formula: Volume (mL) = length × width × height × 0.523. A negative change from baseline indicates improvement. |
| Time Frame | Baseline, Week 12, Week 72 |
| Safety Issue? | No |

Analysis Population Description

Participants from the intent-to-treat population (includes all randomized participants) with data available for analyses at the given time-point.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---------------------------------|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 96 | 91 | 92 | 91 |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| Change From Baseline in Total Prostate Volume [units: milliliter (mL)] Mean (Standard Deviation) | | | | |
| Baseline | 48.78 (16.800) | 48.40 (16.325) | 47.54 (16.917) | 47.23 (14.867) |
| Change from baseline at Week 12 (N=86,84,88,82) | -3.40 (10.046) | -3.65 (9.255) | -3.54 (9.823) | -4.59 (8.392) |
| Change from baseline at Week 72 (N=65,60,67,57) | -3.58 (9.773) | -2.82 (11.194) | -1.77 (10.714) | -2.69 (10.875) |

5. Secondary Outcome Measure:

| | |
|---------------------|---|
| Measure Title | Change From Baseline in Transitional Zone Prostate Volume |
| Measure Description | Measurement of the transitional zone prostate volume was performed via transrectal ultrasound at baseline and various time-points during the study. The prostate gland was scanned and the volume was calculated using the formula: Volume (mL) = length × width × height × 0.523. A negative change from baseline indicates improvement. |
| Time Frame | Baseline, Week 12, Week 72 |
| Safety Issue? | No |

Analysis Population Description

Participants from the intent-to-treat population (includes all randomized participants) with data available for analyses at the given time-point.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 94 | 89 | 90 | 87 |
| Change From Baseline in Transitional Zone Prostate Volume | | | | |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| [units: milliliters (mL)] Mean (Standard Deviation) | | | | |
| Baseline | 20.78 (14.657) | 21.75 (12.931) | 21.00 (14.188) | 20.73 (13.210) |
| Change from baseline at Week 12 (N=83,82,86,79) | -0.23 (6.516) | -0.76 (8.085) | -0.02 (8.445) | -0.27 (6.551) |
| Change from baseline at Week 72 (N=64,59,65,55) | 0.19 (7.655) | -0.94 (8.119) | -0.35 (8.808) | -1.35 (6.801) |

6. Secondary Outcome Measure:

| | |
|---------------------|---|
| Measure Title | Change From Baseline in Post-Void Residual |
| Measure Description | Post-void residual urine volume was assessed by bladder scan or ultrasound on all participants at baseline and various time-points during the study. After voiding, any residual urine volume in the bladder was measured. A negative change from baseline indicates improvement. |
| Time Frame | Baseline, Week 2, Week 12, Week 72 |
| Safety Issue? | No |

Analysis Population Description

Participants from the safety population (includes all randomized and treated participants) with data available for analyses at the given time-point.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 92 | 89 | 89 | 91 |
| Change From Baseline in Post-Void Residual [units: milliliters (mL)] Mean (Standard Deviation) | | | | |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---|------------------------------|------------------------------|------------------------------|-------------------------|
| Baseline | 73.0 (57.07) | 69.7 (54.93) | 66.1 (55.59) | 64.3 (51.89) |
| Change from baseline at Week 2 (N=76,82,80,78) | 5.4 (64.06) | 10.9 (88.62) | -1.4 (65.01) | 1.6 (61.03) |
| Change from baseline at Week 12 (N=88,84,89,82) | 7.5 (78.18) | 9.0 (81.23) | -1.4 (62.82) | 3.2 (57.92) |
| Change from baseline at Week 72 (N=66,60,65,60) | 10.9 (73.27) | -12.4 (54.31) | 14.0 (75.97) | 6.0 (69.79) |

7. Other Pre-specified Outcome Measure:

| | |
|---------------------|---|
| Measure Title | Change From Baseline in the International Index of Erectile Function (IIEF) Questionnaire Erectile Function Domain |
| Measure Description | The IIEF is a 15-item questionnaire filled out by the patient to assess erectile function over the past 4 weeks that contains five domains. The score for the erectile function domain is the sum of scores for Questions 1, 2, 3, 4, 5 and 15 for a total possible score of 1 to 30. A higher score indicates a better outcome. A positive change from baseline indicates improvement. |
| Time Frame | Baseline, Week 12, Week 72 |
| Safety Issue? | No |

Analysis Population Description

Participants from the intent-to-treat population (includes all randomized participants) with data available for analyses at the given time-point.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 86 | 79 | 84 | 87 |
| Change From Baseline in the International Index of Erectile Function (IIEF) Questionnaire Erectile Function Domain | | | | |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| [units: Score on a scale] Mean (Standard Deviation) | | | | |
| Baseline | 15.4 (10.20) | 14.6 (10.7) | 17.2 (10.19) | 16.7 (10.29) |
| Change from baseline at Week 12 (N=80,72,83,79) | 0.1 (6.66) | -0.2 (5.54) | -0.9 (6.93) | 1.3 (7.86) |
| Change from baseline at Week 72 (N=61,54,61,58) | 0.8 (7.17) | 0.5 (4.56) | -1.5 (7.34) | -0.9 (7.95) |

8. Post-Hoc Outcome Measure:

| | |
|---------------------|---|
| Measure Title | Change From Baseline in IPSS at Week 12 in Patients Previously Treated With Alpha-blockers |
| Measure Description | The International Prostate Symptom Score (IPSS) is a disease-specific outcome measure based on the American Urological Association Symptom Index. The questionnaire consists of seven items. The patient evaluates their urinary symptoms (incomplete emptying, frequency, hesitancy, urgency, weak stream, straining, and nocturia) during the previous 4 weeks. The total symptom score can range from 0 (no symptoms) to 35 (most severe symptoms). A negative change from baseline indicates improvement. |
| Time Frame | Baseline, Week 12 |
| Safety Issue? | No |

Analysis Population Description

Participants from the Intent-to-treat population previously treated with alpha-blockers with data available for analyses.

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Measured Values

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---------------------------------|------------------------------|------------------------------|------------------------------|-------------------------|
| Number of Participants Analyzed | 44 | 35 | 52 | 43 |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| Change From Baseline in IPSS at Week 12 in Patients Previously Treated With Alpha-blockers [units: Score on a scale] Mean (Standard Deviation) | | | | |
| Baseline | 21.3 (6.20) | 19.6 (6.15) | 21.9 (5.65) | 20.4 (5.32) |
| Change from baseline at Week 12 (N=44,35,52,42) | -5.1 (7.76) | -6.6 (5.91) | -5.4 (5.17) | -3.5 (6.12) |

▶ Reported Adverse Events

| | |
|------------------------|--|
| Time Frame | [Not specified] |
| Additional Description | Safety population was used to calculate the number of participants at risk for Serious Adverse Events and Adverse Events and was defined as all randomized and treated participants. |

Reporting Groups

| | Description |
|------------------------------|---|
| Botulinum Toxin Type A 300 U | Botulinum toxin Type A 300 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 200 U | Botulinum toxin Type A 200 U transperineal or transrectal injection on Day 1. |
| Botulinum Toxin Type A 100 U | Botulinum toxin Type A 100 U transperineal or transrectal injection on Day 1. |
| Placebo (Normal Saline) | Placebo (Normal Saline) transperineal or transrectal injection on Day 1. |

Serious Adverse Events

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) |
| Total | 9/94 (9.57%) | 16/93 (17.2%) | 10/94 (10.64%) | 11/92 (11.96%) |
| Cardiac disorders | | | | |
| Acute coronary syndrome ^{A †} | 0/94 (0%) | 0/93 (0%) | 2/94 (2.13%) | 0/92 (0%) |
| Angina pectoris ^{A †} | 0/94 (0%) | 2/93 (2.15%) | 0/94 (0%) | 0/92 (0%) |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---|---------------------------------|---------------------------------|---------------------------------|-------------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) |
| Angina unstable ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Myocardial infarction ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Eye disorders | | | | |
| Blindness unilateral ^{A *} | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Corneal degeneration ^{A †} | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Retinal artery thrombosis ^{A †} | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Gastrointestinal disorders | | | | |
| Gastritis ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Inguinal hernia ^{A †} | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Intestinal obstruction ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| General disorders | | | | |
| Accidental death ^{A †} | 0/94 (0%) | 2/93 (2.15%) | 0/94 (0%) | 0/92 (0%) |
| Non-cardiac chest pain ^{A *} | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Hepatobiliary disorders | | | | |
| Cholecystitis acute ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Cholelithiasis ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Infections and infestations | | | | |
| Bacterial prostatitis ^{A †} | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Cellulitis ^{A †} | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Herpes zoster ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Injury, poisoning and procedural complications | | | | |
| Femur fracture ^{A †} | 1/94 (1.06%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|---------------------------------|---------------------------------|---------------------------------|-------------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) |
| Investigations | | | | |
| Prostatic specific antigen increased ^A † | 1/94 (1.06%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |
| Musculoskeletal and connective tissue disorders | | | | |
| Arthralgia ^A * | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Arthritis ^A † | 1/94 (1.06%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |
| Intervertebral disc protrusion ^A † | 1/94 (1.06%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |
| Osteoarthritis ^A † | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 2/92 (2.17%) |
| Neoplasms benign, malignant and unspecified (incl cysts and polyps) | | | | |
| Basal cell carcinoma ^A † | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Gastric adenoma ^A † | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Gastric cancer ^A † | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Metastatic neoplasm ^A † | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Prostate cancer ^A † | 1/94 (1.06%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |
| Renal cancer ^A † | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Renal cell carcinoma ^A † | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 1/92 (1.09%) |
| Nervous system disorders | | | | |
| Carotid artery stenosis ^A † | 0/94 (0%) | 0/93 (0%) | 0/94 (0%) | 1/92 (1.09%) |
| Hypoaesthesia ^A * | 1/94 (1.06%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |
| Psychiatric disorders | | | | |
| Alcoholism ^A † | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |
| Anxiety ^A * | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Renal and urinary disorders | | | | |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|---|------------------------------|------------------------------|------------------------------|-------------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) |
| Calculus bladder ^{A †} | 2/94 (2.13%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |
| Calculus ureteric ^{A †} | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Hydronephrosis ^{A †} | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Nephrolithiasis ^{A †} | 1/94 (1.06%) | 0/93 (0%) | 0/94 (0%) | 0/92 (0%) |
| Urinary retention ^{A *} | 1/94 (1.06%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Reproductive system and breast disorders | | | | |
| Benign prostatic hyperplasia ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 1/92 (1.09%) |
| Prostatitis ^{A †} | 1/94 (1.06%) | 2/93 (2.15%) | 1/94 (1.06%) | 0/92 (0%) |
| Respiratory, thoracic and mediastinal disorders | | | | |
| Pleural effusion ^{A †} | 0/94 (0%) | 0/93 (0%) | 1/94 (1.06%) | 0/92 (0%) |
| Vascular disorders | | | | |
| Hypertensive crisis ^{A †} | 0/94 (0%) | 1/93 (1.08%) | 0/94 (0%) | 0/92 (0%) |

† Indicates events were collected by systematic assessment.

* Indicates events were collected by non-systematic methods.

A Term from vocabulary, MedDRA 13.0

Other Adverse Events

Frequency Threshold Above Which Other Adverse Events are Reported: 5%

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) |
| Total | 41/94 (43.62%) | 46/93 (49.46%) | 53/94 (56.38%) | 55/92 (59.78%) |
| Infections and infestations | | | | |
| Nasopharyngitis ^{A †} | 5/94 (5.32%) | 6/93 (6.45%) | 5/94 (5.32%) | 5/92 (5.43%) |
| Urinary tract infection ^{A †} | 6/94 (6.38%) | 1/93 (1.08%) | 4/94 (4.26%) | 3/92 (3.26%) |
| Investigations | | | | |

| | Botulinum Toxin Type A 300 U | Botulinum Toxin Type A 200 U | Botulinum Toxin Type A 100 U | Placebo (Normal Saline) |
|--|------------------------------|------------------------------|------------------------------|-------------------------|
| | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) | Affected/At Risk (%) |
| Prostatic specific antigen increase ^{A †} | 5/94 (5.32%) | 5/93 (5.38%) | 3/94 (3.19%) | 5/92 (5.43%) |
| Musculoskeletal and connective tissue disorders | | | | |
| Back pain ^{A *} | 1/94 (1.06%) | 5/93 (5.38%) | 2/94 (2.13%) | 3/92 (3.26%) |
| Renal and urinary disorders | | | | |
| Dysuria ^{A *} | 2/94 (2.13%) | 5/93 (5.38%) | 4/94 (4.26%) | 3/92 (3.26%) |
| Haematuria ^{A †} | 4/94 (4.26%) | 7/93 (7.53%) | 8/94 (8.51%) | 8/92 (8.7%) |
| Micturition urgency ^{A *} | 1/94 (1.06%) | 3/93 (3.23%) | 5/94 (5.32%) | 6/92 (6.52%) |
| Pollakiuria ^{A *} | 1/94 (1.06%) | 2/93 (2.15%) | 2/94 (2.13%) | 5/92 (5.43%) |
| Renal cyst ^{A †} | 7/94 (7.45%) | 2/93 (2.15%) | 7/94 (7.45%) | 3/92 (3.26%) |
| Urinary retention ^{A †} | 2/94 (2.13%) | 2/93 (2.15%) | 5/94 (5.32%) | 3/92 (3.26%) |
| Reproductive system and breast disorders | | | | |
| Haemospermia ^{A †} | 2/94 (2.13%) | 6/93 (6.45%) | 5/94 (5.32%) | 7/92 (7.61%) |
| Vascular disorders | | | | |
| Hypertension ^{A †} | 5/94 (5.32%) | 2/93 (2.15%) | 3/94 (3.19%) | 4/92 (4.35%) |

† Indicates events were collected by systematic assessment.

* Indicates events were collected by non-systematic methods.

A Term from vocabulary, MedDRA 13.0

▶ Limitations and Caveats

[Not specified]

▶ More Information

Certain Agreements:

Principal Investigators are NOT employed by the organization sponsoring the study.

There IS an agreement between the Principal Investigator and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

A disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is less than or equal to 90 days from the time submitted to the sponsor for review. The sponsor cannot require changes to the communication and cannot extend the embargo.

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