a botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said dose of the composition provides a single treatment having at least a 16 week duration of effect in reducing the symptoms of cervical dystonia in the individual, thereby extending treatment interval duration for the individual.

[0017b] In one aspect, the present disclosure refers to use of a botulinum toxin component for the manufacture of an injectable composition for the treatment of cervical dystonia in an individual in need thereof, said composition comprising:

the botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said dose of the composition provides a single treatment having at least a 16 week duration of effect in reducing the symptoms of cervical dystonia in the individual, thereby extending treatment interval duration for the individual.

[0017c] In one aspect, the present disclosure refers to a pharmaceutical composition in a sterile injectable formulation for use in treating cervical dystonia in an individual in need thereof who as been treated previously with the injectable composition, said composition comprising:

a botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said inidvidual was previously treated with the dose and had a duration of effect of at least 20 weeks in reducing the symptoms of cervical dystonia in the individual and the treatment of said subject was at least 20 weeks after the previous treatment.

[0017d] In one aspect, the present disclosure refers to of a botulinum toxin component for the manufacture of an injectable composition for a treatment of cervical dystonia in an individual in need thereof who as been treated previously with the injectable composition, said composition comprising:

the botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said inidvidual was previously treated with the dose and had a duration of effect of at least 20 weeks in reducing the symptoms of cervical dystonia in the individual and the treatment of said subject was at least 20 weeks after the previous treatment.

[0018] In another example, the disclosure provides effective doses and amounts of the compositions of this disclosure in the treatment of cervical dystonia that afford a long-lasting, sustained efficacy e.g., a response rate of long duration, following administration by injection to

Claims:

1. A pharmaceutical composition in a sterile injectable formulation for use in treating cervical dystonia in an individual in need thereof, said composition comprising:

a botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said dose of the composition provides a single treatment having at least a 16 week duration of effect in reducing the symptoms of cervical dystonia in the individual, thereby extending treatment interval duration for the individual.

2. Use of a botulinum toxin component for the manufacture of an injectable composition for the treatment of cervical dystonia in an individual in need thereof, said composition comprising:

the botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said dose of the composition provides a single treatment having at least a 16 week duration of effect in reducing the symptoms of cervical dystonia in the individual, thereby extending treatment interval duration for the individual.

3. The use according to claim 2, wherein the composition comprises botulinum toxin of serotype A.

4. The use according to claim 2, wherein the composition comprises botulinum toxin of serotype A having a molecular weight of 150 kDa.

5. The use according to any one of claims 2 to 4, wherein the composition does not locally diffuse from the site of injection following injection.

6. The use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises greater than 20 weeks.

7. The use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises greater than 24 weeks.

8. The use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises greater than 5 months.

9. The use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises greater than 6 months.

10. The pharmaceutical composition for use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises greater than 7 months.

11. The pharmaceutical composition for use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises greater than 8 months.

12. The pharmaceutical composition for use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises greater than 9 months.

13. The pharmaceutical composition for use according to any one of claims 2 to 5, wherein the duration of treatment effect comprises at least 6 months through 10 months.

14. A pharmaceutical composition in a sterile injectable formulation for use in treating cervical dystonia in an individual in need thereof who as been treated previously with the injectable composition, said composition comprising:

a botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said inidvidual was previously treated with the dose and had a duration of effect of at least 20 weeks in reducing the symptoms of cervical dystonia in the individual and the treatment of said subject was at least 20 weeks after the previous treatment.

15. Use of a botulinum toxin component for the manufacture of an injectable composition for a treatment of cervical dystonia in an individual in need thereof who as been treated previously with the injectable composition, said composition comprising:

the botulinum toxin component in a dose of 200 U to 300 U, said botulinum toxin component selected from the group consisting of a botulinum toxin complex, a reduced botulinum toxin complex, or a botulinum toxin,

a positively charged carrier component having an amino acid sequence of SEQ ID NO: 4; and

a pharmaceutically acceptable diluent for injection;

wherein the positively charged carrier is non-covalently associated with the botulinum toxin component; and

wherein said inidvidual was previously treated with the dose and had a duration of effect of at least 20 weeks in reducing the symptoms of cervical dystonia in the individual and the treatment of said subject was at least 20 weeks after the previous treatment.