Summary of Invention

The invention therefore provides in one aspect the use of liposomes composed of non-charged vesicle-forming phospholipids, wherein said phospholipids comprise long-chain saturated fatty acids, said liposomes optionally including not more than 10 mole percent of negatively charged vesicle-forming lipids and/or not more than 10 mole percent of PEGylated lipids, said liposomes having a selected mean particle diameter in the size range of 40-200 nm and comprising a corticosteroid in water-soluble form for the preparation of a medicament for the treatment of an ophthalmic inflammatory disorder in a subject by subconjunctival administration at a dose of at most 5 mg corticosteroid, wherein said treatment has a treatment frequency of at most once per two weeks.

Description of the Invention

Accordingly, the invention provides liposomes composed of non-charged vesicle-forming lipids, optionally including not more than 10 mole percent of negatively charged vesicle-forming lipids and/or not more than 10 mole percent of PEGylated lipids, the liposomes having a selected mean particle diameter in the size range of 40-200 nm and comprising a water soluble corticosteroid derivative, for use in a method for the treatment of an inflammatory disorder in a subject at a dose of at most 20 mg corticosteroid, preferably of at most 15 mg corticosteroid, more preferably of at most 10 mg corticosteroid, wherein said treatment comprises topical administration to an inflamed lesion or area, preferably topical injection in an inflamed lesion or area, and wherein said treatment has a treatment frequency of at most once per two weeks.

The invention further provides a method for the treatment of an inflammatory disorder in a subject in need thereof, the method comprising administering to the subject liposomes composed of non-charged vesicle-forming lipids, optionally including not more than 10 mole percent of negatively charged vesicle-forming lipids and/or not more than 10 mole percent of PEGylated lipids, the liposomes having a selected mean particle diameter in the size range of 40-200 nm and comprising a water soluble corticosteroid derivative at a dose of at most 20 mg corticosteroid, preferably of at most 15 mg corticosteroid, more preferably of at

most 10 mg corticosteroid, wherein said treatment comprises topical administration to an inflamed lesion or area in said subject, preferably topical injection in an inflamed lesion or area in said subject, and wherein said treatment has a treatment frequency of at most once per two weeks.

In some preferred embodiments the invention provides liposomes composed of non-charged vesicle-forming phospholipids, wherein said phospholipids comprise long-chain saturated fatty acids, said liposomes optionally including not more than 10 mole percent of negatively charged vesicle-forming lipids and/or not more than 10 mole percent of PEGylated lipids, said liposomes having a selected mean particle diameter in the size range of 40-200 nm and comprising a corticosteroid in water-soluble form, for use in a method for the treatment of an ophthalmic inflammatory disorder in a subject by subconjunctival

Claims

1. Use of liposomes composed of non-charged vesicle-forming phospholipids, wherein said phospholipids comprise long-chain saturated fatty acids, said liposomes optionally including not more than 10 mole percent of negatively charged vesicle-forming lipids and/or not more than 10 mole percent of PEGylated lipids, said liposomes having a selected mean particle diameter in the size range of 40-200 nm and comprising a corticosteroid in water-soluble form for the preparation of a medicament for the treatment of an ophthalmic inflammatory disorder in a subject by subconjunctival administration at a dose of at most 5 mg corticosteroid, wherein said treatment has a treatment frequency of at most once per two weeks.

2. Use according to claim 1 wherein said non-charged vesicle-forming phospholipids are selected from the group consisting of DiPaltmitoyl Phosphatidyl Choline (DPPC), Hydrogenated Soy Bean Phosphatidyl Choline (HSPC), DiStearoyl Phosphatidyl Choline (DSPC), Hydrogenated Egg Phosphatidyl Choline (HEPC) and combinations thereof.

3. Use according to claim 1 or 2, wherein said negatively charged vesicle-forming lipids are selected from the group consisting of DiPalmitoyl Phosphatidyl Glycerol (DPPG), DiStearoyl Phosphatidyl Glycerol (DSPG) and a combination thereof.

4. Use according to claim 1 or 2, wherein said liposomes are composed of phospholipids selected from the group consisting of DPPC, HSPC, DSPC, HEPC and any combination thereof.

5. Use according to claim 1 or 2, wherein said liposomes are composed of:
- phospholipids selected from the group consisting of DPPC, HSPC, DSPC, HEPC and any combination thereof; and
- cholesterol.

6. Use according to any one of claims 1-5, wherein said treatment comprises that a single dose of said liposomes is to be administered by subconjunctival injection.

7. Use according to any one of claims 1-6, wherein said ophthalmic inflammatory disorder is uveitis or conjunctivitis.

8. Use according to any one of claims 1-7, wherein said treatment has a treatment frequency of at most once per month.

9. Use according to any one of claims 1-8, wherein said subject is a human.

10. Use according to any one of claims 1-9, wherein said corticosteroid is selected from the group consisting of methylprednisolone disodium phosphate, methylprednisolone sodium succinate, prednisolone sodium phosphate, prednisolone sodium succinate and any combination thereof.

11. Use according to any one of claims 1-10, wherein said corticosteroid is selected from the group consisting of prednisolone sodium phosphate, triamcinolone acetonide sodium phosphate, dexamethasone sodium phosphate, and any combination thereof.