NOVEL MEDICAMENT COMPOSITIONS, BASED ON ANTICHOLINERGICALLY EFFECTIVE COMPOUNDS AND BETA-MIMETICS

The present invention relates to new medicament compositions based on anticholinergic compounds, which have a long-lasting effect, and β-mimetics, which have a long-lasting effect, processes for their production and their use in the therapy of respiratory ailments.

Background of the invention

It is known from the prior art that β-mimetics and anticholinergics can successfully be used as bronchospasmolytics for the treatment of obstructive respiratory ailments – such as e.g. asthma. Substances with β-sympatho-mimetic effectiveness – such as e.g. the active substance formoterol, also known from the prior art – can, however, be associated with undesirable side-effects when administered to humans.

Generally, the central effects manifest as unease, excitation, sleeplessness, fear, shaking fingers, outbreaks of sweating and headaches. Here, inhalative application does not exclude these side-effects although they are generally less severe than with peroral or parenteral application.

The side-effects of the β-sympatho-mimetics used as asthma agents are primarily associated with a more or less pronounced β1-stimulating effect on the heart. It generates tachycardia, palpitation, angina pectoris-like complaints and arrhythmia [P.T. Ammon (Ed.), Medicament Side-effects and Interactions, Wissenschaftliche Verlagsgesellschaft, Stuttgart 1986,S. 584].

Summary

In a first aspect, there is provided a pharmaceutical composition, characterised in that it contains an anticholinergic, which has a long-lasting effect, and a β-mimetic which has a long-lasting effect, optionally in the form of their racemates, their enantiomers, their diastereomers and mixtures thereof, wherein the anticholinergic is glycopyrronium bromide.

In a second aspect, there is provided a pharmaceutical composition as defined above, characterised in that it is an inhalatively-applicable pharmaceutical composition.

In a third aspect, there is provided a process for the production of a pharmaceutical composition as defined above, characterised in that one mixes and produces an anticholinergic, which has a long-lasting effect, and a β-mimetic, which has a long-lasting effect, and optionally other adjuvant and/or carrier materials according to per se known methods.

In a fourth aspect, there is provided the use of a composition as defined above for the production of a medicament for the treatment of respiratory ailments.

Description of the invention

Surprisingly, it has now been found that the above-mentioned side-effects can be substantially reduced by a combination of a β-sympatho-mimetic, which has a long-lasting effect, with an anticholinergic, which has a long-lasting effect.

In addition, it was also very surprisingly discovered that the bronchospasmolytic effects of the anticholinergic, which has a long-lasting effect, and the β-mimetic, which has a long-lasting effect, increase in a superadditive manner.