**Description**

**A COMPOSITION FOR PREVENTING GERIATRIC CACHEXIA**

**Technical Field**

The invention relates to a composition formed for the prevention of geriatric cachexia.

**State of the Art**

The weakness resulting from the old age may be classified by the reduction of the anaerobic capacity (muscle strength) as well as deconditioning and the structural deteriorations in the body structure. Reduction in the muscle strength and the lifting force, loss of elasticity and strength from the muscle tissues and connective tissues, decrease in bone density and bone organic density, reduction in the continuity of physical power and in the lung capacity, weakening of the cardiac muscle and the reduction of the oxygen use efficiency, circulatory disorders and cardiovascular insufficiencies resulting from the weakening of the cardiac muscle, urinal and fecal incontinence caused by the loss of neuromuscular efficiency, inability to completely recover following the fractures and the condition of being unable to live without support may be listed as the examples of geriatric cachexia.

Pro-cholinergic drugs, hormone therapy and exercise may be mentioned as the examples of the currently existing treatments for this condition. Centrophenoxine (meclofenoxate) treatment provides increase in the muscle strength and condition improvement in the elder and partially regulates some endocrinal parameters. The growth hormone and anabolic steroid supplement yield quite good results at low doses, but they may cause various symptoms from the prostate enlargement to the prostate cancer, from the colon cancer to the heart attack, from diabetes to acromegaly in case of overdose or of failure to monitor the tolerance.

The invention no. JP19990106996 entitled “Novel ligands of PPAR nuclear receptors” relates to the ligands of nuclear receptors PPAR's (peroxisome proliferator-activated receptors) which are compounds selected from the group consisting of ascofuranone; and ascofuranone homologs and ascochlorin homologs having at least one orcyl aldehyde moiety wherein the hydrogen atom(s) of the hydroxyl group(s) at the 2-position and/or the 4-position of the orcyl aldehyde moiety is/are substituted by C1-15 alkyl, C1-15 alkenyl, CH2-COOH, CH2COO(C1-15)alkyl, C(=”O”)(C1-15)alkyl, C(=”O”)(CH2)1-15COOH, nicotinoyl or isonicotinoyl, etc. These ligands are useful in treating and/or preventing diabetes; hypertension or cerebrovascular disorders; arteriosclerosis; diabetes complications; chronic inflammation; cachexia; digestive system cancers, etc.

As a result, the presence of the need for a composition formed for preventing geriatric cachexia and the inadequacy of the existing solutions have made it necessary to perform an improvement in the relevant art.

**Object of the Invention**

In order to eliminate the disadvantages of the state of the art, an object of the invention is both to stimulate the release of the natural growth hormone and exhibit neurotrophic action on the neuromuscular junction.

Another object of the invention is to promote the increase of the number of the muscle cells, the repair of the connective tissue and the increase of the muscle strength.

Another object of the invention is to strengthen the cardiac muscle and increase the ability of contraction.

Another object of the invention is to provide the blood pressure-reducing and blood sugar-reducing effect by increasing the expression of nitric oxide synthase.

Another object of the invention is to exhibit both myotropic (muscle mass-increasing) and contraction force-increasing action like testosterone and DHT.

Another object of the invention is to exhibit the ability to treat the receptor reduction caused by synthetic testosterone derivatives.

Still another object of the invention is to provide support for the activities that require long time effort, by stabilizing the blood sugar.

Still another object of the invention is to increase the nervous system efficiency and provide active increase in the reflexes.

Still another object of the invention is to accelerate the bone healing by increasing the alkaline phosphatase expression following the bone fractures.

Still another object of the invention is to increase the osteoblast production and balance the blood sugar.

Still another object of the invention is to improve the contraction ability owing to the pro-cholinergic action on the neuromuscular junction.

Still another object of the invention is to prevent the excessive thinning or thickening of the blood owing to the coagulation-regulating action, thereby preventing the circulatory disorders likely to result both from internal bleeding and embolisms.

In order to achieve the aforesaid advantages, the invention is a composition for preventing geriatric cachexia, said composition being obtained by the components selected from the group comprising alpha-methyldioscin, tinaspora cordifolia, 20-(s)-b-ginsenoside rh2 that are used individually or in combinations.

The structural and characteristic features and all the advantages of the invention will become more clearly understood from the detailed description provided below and therefore, the evaluation must be made taking this detailed description into consideration.

**Detailed Description of the Invention**

The invention is a composition formed for the prevention of geriatric cachexia.

Alpha-methyldioscin, which is a rare derivative of dioscin, a furastanol saponin derivative naturally contained by the family dioscorea, both stimulates the release of the natural growth hormone and exhibits neurotrophic action on the neuromuscular junction. Thus, it promotes the increase of the number of the muscle cells, the repair of the connective tissue and the increase of the muscle strength. It strengthens the cardiac muscle and increases the ability of contraction. It provides the blood pressure-reducing and blood sugar-reducing effect by increasing the expression of nitric oxide synthase.

Tinaspora cordifolia extract (10:1), another ingredient of the invention, has partial androgenic activity. This extract binds to the androgen receptors to exhibit both myotropic (muscle mass-increasing) and contraction force-increasing action like testosterone and DHT. It exhibits the ability to treat the receptor reduction caused by synthetic testosterone derivatives. It provides support for the activities that require long time effort, by stabilizing the blood sugar.

20-(S)-B-Ginsenoside, rh2, another ingredient of the invention, owing to its ability to stimulate the AMPA receptor, increases the nervous system efficiency and provides active increase in the reflexes. It accelerates the bone healing by increasing the alkaline phosphatase expression following the bone fractures. It increases the osteoblast production and balances the blood sugar. Owing to its bronchodilating property and its ability to stimulate the AMPA receptor, it increases the breathing capacity. It improves the contraction ability owing to the pro-cholinergic action on the neuromuscular junction. It prevents the excessive thinning or thickening of the blood owing to the coagulation-regulating action, thereby preventing the circulatory disorders likely to result both from internal bleeding and embolisms.

The composition according to the invention contains alpha-methyldioscin, tinaspora cordifolia, 20-(s)-b-ginsenoside rh2.

Said formulation is obtained by a mixture of the aforesaid components according to the following ratios by weight:

20-50% alpha-methyldioscin,

75-40% Tinaspora Cordifolia extract (10:1),

5-10% 20-(s)-B-ginsenoside rh2.

The composition is obtained from the aforesaid components selected from the aforesaid group and used according to the mentioned weight ratio ranges individually or in combinations.

Said invention also encompasses the use of said composition for preventing geriatric cachexia and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for preventing geriatric cachexia, said composition being obtained by the components selected from the group comprising alpha-methyldioscin, tinaspora cordifolia extract, 20-(s)-b-ginsenoside rh2 that are used individually or in combinations.

 2.  A composition according to Claim 1 characterized in that it comprises 20-50% by weight alpha-methyldioscin.

3. A composition according to Claim 1 characterized in that it comprises 75-40% by weight tinaspora cordifolia extract (10:1).

4. A composition according to Claim 1 characterized in that it comprises 5-10% by weight 20-(s)-B-ginsenoside rh2.

5. Use of the components according to Claims 1 to 4 obtained individually or in combinations from the group consisting of alpha-methyldioscin, tinaspora cordifolia extract (10:1) and 20-(s)-b-ginsenoside rh2 for the manufacture of a composition for preventing geriatric cachexia.

**ABSTRACT**

**A COMPOSITION FOR PREVENTING GERIATRIC CACHEXIA**

The invention relates to a composition formed for the prevention of geriatric cachexia.

No figure.