which are applied after the onset of side effects, and do not prevent expression of the side effects due to chemotherapy.

[0010]

Besides these, to prevent and improve side effects of chemotherapy by nutritional intervention, some nutritional supplements are under clinical study. For example, Elental (trade name), which is an elemental diet, has a mucosa-protecting action on glutamine (constituent component), and ingestion thereof during esophageal cancer chemotherapy is known to reduce the onset of stomatitis. In addition, Racol (trade name), which is a low residue diet rich in ω3 fatty acid, has been reported to have a reducing effect on leucopenia, neutropenia, stomatitis and diarrhea in chemical radiation therapy, since ω3 fatty acid has functions such as anti-inflammatory action and the like. Also, Prosure (trade name) containing ω3 fatty acid and zinc like Racol has been reported to reduce side effects of chemotherapy.

[0011]

However, intervention with such nutritional supplements during chemotherapy is generally considered to be poor in compliance, since ingestion of about 400 - 500 ml per day is necessary to achieve an intervention effect, even though the patients have low appetite due to the side effects.

SUMMARY

Problems to be Solved by the Invention

[0012]

An object of the present disclosure is to provide an agent for reducing side effects of cancer chemotherapy, which can reduce the above-mentioned various side effects of cancer chemotherapy and improve the treatment completion rate of cancer chemotherapy.

Means of Solving the Problems

[0013]

The present inventors have found that ingestion of cystine or a derivative thereof, and theanine in combination

can reduce various side effects of cancer chemotherapy and improve the treatment completion rate of cancer chemotherapy, which resulted in the completion of the present disclosure.

Accordingly, the present disclosure is as described below.

[0014]

In one aspect, the present disclosure refers to the use of an agent comprising (A) cystine and (B) theanine in combination in the manufacture of a medicament for improving the treatment completion rate of cancer chemotherapy, wherein said medicament is to be administered to a subject in need thereof. In another aspect, the present disclosure refers to a prophylactic and/or therapeutic drug for use in treating cancer, comprising an agent for reducing a side effect of cancer chemotherapy and an anticancer agent in combination, wherein the agent for reducing a side effect of cancer chemotherapy comprises (A) cystine and (B) theanine in combination. In another aspect, the present disclosure refers to the use of a combination of (A) cystine and (B) theanine in the manufacture of a medicament for use in reducing a side effect of cancer chemotherapy. In a further aspect, the present disclosure refers to the use of a combination of (A) cystine and (B) theanine in the manufacture of a medicament for use in improving the treatment completion rate of cancer chemotherapy. In yet another aspect, the present disclosure refers to a combination of (A) cystine and (B) theanine and an anticancer agent for use in preventing and/or treating cancer.

[1] An agent for reducing side effects of cancer chemotherapy, comprising (A) cystine or a derivative thereof and (B) theanine in combination.

[2] The agent of the above-mentioned [1], which is a composition comprising (A) cystine or a derivative thereof and (B) theanine.

[3] The agent of the above-mentioned [1] or [2], wherein the weight ratio of (A) cystine or a derivative thereof and (B) theanine is A:B=100:1 - 1:100.

[4] The agent of any one of the above-mentioned [1] - [3], which is an agent for improving the treatment completion rate of cancer chemotherapy.

[5] A prophylactic and/or therapeutic drug for cancer, comprising the agent of any one of the above-mentioned [1] - [3], and an anticancer agent in combination.

[6] An agent for improving the treatment completion rate of cancer chemotherapy, comprising (A) cystine or a derivative thereof and (B) theanine in combination.

[7] The agent of the above-mentioned [6], which is a composition comprising (A) cystine or a derivative thereof and (B) theanine.

[8] The agent of the above-mentioned [6] or [7], wherein the weight ratio of (A) cystine or a derivative thereof and (B) theanine is A:B=100:1 - 1:100.

[9] A prophylactic and/or therapeutic drug for cancer, comprising (A) cystine or a derivative thereof, (B) theanine, and an anticancer agent in combination.

[10] The prophylactic and/or therapeutic drug of the above-mentioned [9], which is a composition comprising (A) cystine or a derivative thereof and (B) theanine, and an anticancer agent

Claims

1. Use of an agent comprising (A) cystine and (B) theanine in combination in the manufacture of a medicament for improving the treatment completion rate of cancer chemotherapy, wherein said medicament is to be administered to a subject in need thereof.

2. The use according to claim 1, wherein said agent comprises: a composition comprising (A) cystine and (B) theanine.

3. The use according to claim 1 or 2, wherein said agent comprises: a first composition comprising (A) cystine; and a second composition comprising (B) theanine.

4. The use according to any one of claims 1 to 3, wherein said agent consists of (A) cystine and (B) theanine and at least one selected from the group consisting of binder, excipient, swelling agent, lubricant, flowability improver, gloss agent, sweetener, flavor, preservative, coating agent, carrier and stabilizer.

5. The use according to any one of claims 1 to 3, wherein said agent consists of (A) cystine and (B) theanine.

6. The use according to any one of claim 1 to 5, wherein the weight ratio of (A) cystine and (B) theanine is A:B=100:1 – 1:100.

7. The use according to any one of claims 1 to 6, wherein the weight ratio of (A) cystine and (B) theanine is A:B=20:1 – 1:2.

8. A prophylactic and/or therapeutic drug for use in treating cancer, comprising an agent for reducing a side effect of cancer chemotherapy and an anticancer agent in combination,

wherein the agent for reducing a side effect of cancer chemotherapy comprises (A) cystine and (B) theanine in combination.

9. The prophylactic and/or therapeutic drug for use in treating cancer according to claim 8, wherein said agent for reducing a side effect of cancer chemotherapy comprises: a composition comprising (A) cystine and (B) theanine.

10. The prophylactic and/or therapeutic drug for use in treating cancer according to claim 8 or 9, wherein said agent for reducing a side effect of cancer chemotherapy comprises: a first composition comprising(A) cystine; and a second composition comprising (B) theanine.

11. The prophylactic and/or therapeutic drug for use in treating cancer according to any one of claims 8 to 10, wherein said agent for reducing a side effect of cancer chemotherapy consists of (A) cystine and (B) theanine and at least one selected from the group consisting of binder, excipient, swelling agent, lubricant, flowability improver, gloss agent, sweetener, flavor, preservative, coating agent, carrier and stabilizer.

12. The prophylactic and/or therapeutic drug for use in treating cancer according to any one of claims 8 to 10, wherein said agent for reducing a side effect of cancer chemotherapy consists of (A) cystine and (B) theanine.

13. The prophylactic and/or therapeutic drug for use in treating cancer according to any one of claims 8 to 12, wherein the weight ratio of (A) cystine and (B) theanine is A:B=100:1 – 1:100.

14. The prophylactic and/or therapeutic drug for use in

treating cancer according to any one of claims 8 to 13, wherein the weight ratio of (A) cystine and (B) theanine is A:B=20:1 – 1:2.

15. Use of the prophylactic and/or therapeutic drug according to any one of claims 8 to 14 in the manufacture of a medicament for preventing and/or treating cancer, wherein said medicament is to be administered to a subject in need thereof.

16. Use of a combination of (A) cystine and (B) theanine in the manufacture of a medicament for use in reducing a side effect of cancer chemotherapy.

17. Use of a combination of (A) cystine and (B) theanine in the manufacture of a medicament for use in improving the treatment completion rate of cancer chemotherapy.

18. A combination of (A) cystine and (B) theanine and an anticancer agent for use in preventing and/or treating cancer.

19. The use according to any one of claims 1 to 7 and 15 to 17, or the prophylactic and/or therapeutic drug for cancer according to any one of claims 8 to 14, or the combination of claim 18, wherein (A) is L-cystine.

20. The use according to any one of claims 1 to 7, 15 to 17 and 19, or the prophylactic and/or therapeutic drug for cancer according to any one of claims 8 to 14 and 19, or the combination of claim 18 or 19, wherein (B) is L-theanine.

21. The use according to any one of claims 1 to 7, 15, 16, 19 and 20, or the prophylactic and/or therapeutic drug for cancer according to any one of claims 8 to 14, 19 and 20, wherein the side effect of cancer chemotherapy comprises a side effect that can lead to the suspension of cancer chemotherapy.

22. The use, the prophylactic and/or therapeutic drug for cancer of claim 21, wherein the side effect that can lead to the suspension of cancer chemotherapy is selected from the group consisting of anorexia, nausea, vomiting, diarrhea, stomatitis, malaise and granulocytopenia.