CANCER TREATMENT

The present invention provides for the treatment of cancer with erdafitinib with a high potential for response while limiting potential toxicities such as for example nail toxicities.

The present invention provides for treatment of cancer with erdafitinib that maximizes erdafitinib exposure while limiting potential toxicities.

The present invention provides for treatment of cancer with erdafitinib with a high objective response rate, in particular with an objective response rate of at least 40%, in particular with an objective response rate of at least 40 % in chemo-naïve cancer patients, with an objective response rate of at least 40 % in cancer patients who had disease progression after one prior line of chemotherapy, with an objective response rate of at least 40 % in cancer patients who had disease progression after two or more prior lines of chemotherapy.

The present invention provides for treatment of cancer with erdafitinib with a short time to response, in particular with a median time to response less than 2 months.

Description of the Figures

Figure 1 represents the study scheme for the Phase 2, multicenter, open-label study to evaluate the efficacy and safety of erdafitinib in subjects with metastatic or surgically unresectable urothelial cancer harboring selected FGFR (fibroblast growth factor receptor) genetic alterations (FGFR translocations or mutations).

Figure 2 represents a Waterfall plot of maximum percentage reduction from baseline in sum of target lesion diameters among patients treated with the regimen of 8 mg continuous erdafitinib (Regimen 3 of the phase 2 study (Fig. 1)). M, *FGFR* mutation; T, *FGFR* translocation.

Summary

In one aspect, there is provided use of erdafitinib in the manufacture of a medicament for the treatment of cancer in a cancer patient, wherein

a) erdafitinib is to be administered in an amount of 8 mg daily on a continuous basis;

b) the serum phosphate levels of the patient are to be measured on a treatment day during the first cycle of erdafitinib treatment; and

c-1) when the serum phosphate levels are <5.5 mg/dL, erdafitinib is to be administered in an amount of 9 mg daily on a continuous basis;

c-2) when the serum phosphate levels range from and including 5.5 mg/dL to < 7 mg/dL, the patient remains on the 8 mg daily; or

c-3) when the serum phosphate levels are ≥ 7 mg/dL, the erdafitinib treatment is to be interrupted temporarily.

Detailed description of the invention

The present invention provides for the treatment of cancer with erdafitinib that maximizes erdafitinib exposure already within the first cycle of treatment (set at, for example, the first 28 days of treatment or the first 21 days of treatment, in particular with daily continuous dosing) as well as during further treatment cycles (set at, for example, 28 days/cycle or 21 days/cycle, in particular with daily continuous dosing) while limiting potential toxicities.

Claims

1. Use of erdafitinib in the manufacture of a medicament for the treatment of cancer in a cancer patient, wherein

a) erdafitinib is to be administered in an amount of 8 mg daily on a continuous basis;

b) the serum phosphate levels of the patient are to be measured on a treatment day during the first cycle of erdafitinib treatment; and

c-1) when the serum phosphate levels are <5.5 mg/dL, erdafitinib is to be administered in an amount of 9 mg daily on a continuous basis;

c-2) when the serum phosphate levels range from and including 5.5 mg/dL to < 7 mg/dL, the patient remains on the 8 mg daily continuous treatment; or

c-3) when the serum phosphate levels are ≥ 7 mg/dL, the erdafitinib treatment is to be interrupted temporarily.

2. The use according to claim 1, wherein,
when the serum phosphate levels are ≥ 7 mg/dL, the erdafitinib treatment is to be interrupted temporarily until serum phosphate levels are <5.5 mg/dL.

3. The use according to claim 2, wherein,
when the serum phosphate levels range from and including 7 mg/dL to ≤9 mg/dL, the erdafitinib treatment is to be interrupted temporarily until serum phosphate levels are <5.5 mg/dL and then erdafitinib treatment is to be re-started with 8 mg daily on a continuous basis.

4. The use according to claim 2, wherein,
when the serum phosphate levels are > 9 mg/dL, the erdafitinib treatment is to be interrupted temporarily until serum phosphate levels are <5.5 mg/dL and erdafitinib treatment is to be re-started at a lower dose.

5. The use according to claim 4, wherein the lower dose is 6 mg daily on a continuous basis.

6. The use according to claim 1, wherein,
when the serum phosphate levels are > 10 mg/dL, the erdafitinib treatment is to be discontinued permanently.

7. The use according to claim 1, wherein,

when the serum phosphate levels are > 10 mg/dL, the erdafitinib treatment is to be interrupted temporarily until serum phosphate levels are <5.5 mg/dL and erdafitinib treatment is to be re-started at a lower dose.

8. The use according to any one of the preceding claims, wherein the amount of 8 mg of erdafitinib is to be administered once daily.

9. The use according to claim 1, wherein the amount of 9 mg of erdafitinib is to be administered once daily.

10. The use according to any one of the preceding claims, wherein the serum phosphate levels of the patient are measured on day 14 ± 2 days during the first cycle of erdafitinib treatment.

11. The use according to claim 10, wherein the serum phosphate levels of the patient are measured on day 14 during the first cycle of erdafitinib treatment.

12. The use according to any one of the preceding claims, wherein the cancer is urothelial cancer, bladder cancer, hepatocellular cancer, squamous cell carcinoma, or lung cancer.

13. The use according to claim 12 wherein the cancer is metastatic or surgically unresectable urothelial cancer.

14. The use according to any one of claims 1 to 11, wherein the cancer is advanced or metastatic cholangiocarcinoma.

15. The use according to claim 12, wherein the cancer is non-muscle-invasive bladder cancer.

16. The use according to any one of the preceding claims, wherein the cancer is a cancer harboring a FGFR genomic alteration.

17. The use according to claim 16, wherein the alteration is selected from the following fusions : FGFR3:TACC3 v1; FGFR3:TACC3 v3; FGFR3:TACC3 Intron; FGFR3:BAIAP2L1; FGFR2:AFF3; FGFR2:BICC1; FGFR2:CASP7; FGFR2:CCDC6 and FGFR2:OFD1.

18. The use according to claim 17 wherein the alteration is a FGFR3-TACC3 fusion.

19. The use according to claim 12 or 13, wherein the cancer is bladder cancer with FGFR3-TACC3 translocation, or urothelial cancer with FGFR3-TACC3 translocation, or metastatic or surgically unresectable urothelial cancer with FGFR3-TACC3 translocation.

20. The use according to claim 16, wherein the alteration is selected from the following FGFR3 gene mutations : FGFR3 R248C, FGFR3 S249C, FGFR3 G370C, and FGFR3 Y373C.

21. The use according to claim 12 or 13, wherein the cancer is bladder cancer or urothelial cancer or metastatic or surgically unresectable urothelial cancer harboring at least one of the following FGFR3 gene mutations : FGFR3 R248C, FGFR3 S249C, FGFR3 G370C, and FGFR3 Y373C.

22. The use according to any one of the preceding claims, wherein the amount of 8 mg of erdafitinib is to be administered as 2 formulations.

23. The use according to claim 22, wherein the 2 formulations are 2 tablets, each comprising 4 mg of erdafitinib.

24. The use according to any one of the preceding claims, wherein the amount of 9 mg of erdafitinib is to be administered as 3 formulations.

25. The use according to claim 24, wherein the 3 formulations are 3 tablets, each comprising 3 mg of erdafitinib.