Author’s response to reviews

Title: Development of metachronous rectal cancers in a young man with dyskeratosis congenita: A case report

Authors:

Motoko Watanabe (watanabe.motoko@gmail.com)
Gou Yamamoto (gyampth@gmail.com)
Kenji Fujiyoshi (fujiyoshi_kenji@med.kurume-u.ac.jp)
Yoshito Akagi (yoshisg@med.kurume-u.ac.jp)
Miho Kakuta (kakutamiho@nifty.com)
Yoji Nishimura (yojinish@cancer-c.pref.saitama.jp)
Kiwamu Akagi (akagi@cancer-c.pref.saitama.jp)

Version: 2 Date: 16 Feb 2019

Author’s response to reviews:

Response to Reviewers

First of all, we are grateful to the reviewers for critical comments and invaluable suggestions that have helped us to improve our manuscript. As indicated in the responses that follow, we have taken all these comments and suggestions into account in the revised version of our paper.

Reviewer:

Comments to the Author

1) Add a paragraph at the end of the Introduction that explains why this case report is presented (what is unique and adds to the medical knowledge)
Response

We added characteristics of this case at the end of the introduction in page 6 as follows.

In this report, we described a patient with a DKC1 missense variant, c.361A>G (p.Ser121Gly), developed multiple rectal cancers in young adulthood after bone marrow failure. Since the clinical features of this DC case were less typical except bone marrow failure, the diagnosis of this patient was led by comprehensive RNA-sequencing.

2) The Case report is disorganized: History and should be in the beginning.

Response

We moved the history and habits in the beginning of the case presentation in page 7.

3) Give detailed physical and neurological examination on each major admission. What was the pulse, blood pressure and temperature, on these admissions?

Response

We described the following sentences in page 7 and 8.

On examination, the temperature was 36.4°C, the pulse 72 beats per minute, the blood pressure 132/64 mm, the respiratory rate 16 breaths per minute, the weight 54 kg, the height 164 cm. He had no developmental disorders and intellectual disability. Physical and neurological examination was normal.
He was admitted to this hospital again because of bloody stool at the age of 18 years. On examination, the temperature was 36.8°C, the pulse 74 beats per minute, the blood pressure 102/56 mm, the respiratory rate 23 breaths per minute, the weight 43.8 kg, the height 168 cm. Physical and neurological examination was normal.

4) All abbreviations in the Abstract needs to be explained on the first time they are used.

Response

All abbreviations in the abstract were explained.

DKC1 (Dyskerin Pseudouridine Synthase 1)

5) Give the doses of all medications that were given and their doses.

Response

The treatment was performed at another hospital therefore, we haven’t obtained their information in detail.

6) Give all results of laboratory findings (i.e. CBC, liver and renal functions), urinalysis, serology, microbiology etc)

Response

Results of laboratory findings were described in page 7 and 8.
Laboratory findings were as follows: hemoglobin 8.7 g/dl, hematocrit 26.1%, white blood cell 1660 per mm3, with 53% neutrophils, 32% lymphocytes, 13% monocytes, 2% eosinophils, platelet count 47,000 per mm3, red cell count 2,860 per mm3; sodium 138 mmol/liter, potassium 3.5 mmol/liter, chloride 104 mmol/liter, urea nitrogen 10 mg/dl, creatinine 0.54 mg/dl, glucose 95 mg/dl, total protein 7.2 g/dl, albumin 3.8 g/dl, alanine aminotransferase 30 U/liter, aspartate aminotransferase 34 u/liter, alkaline phosphatase 561 U/liter, total bilirubin 0.8 mg/dl, C-reactive protein <0.3 mg/dl. Urinalysis values were as follows: specific gravity 1.020; protein -; glucose -. Tests for antibodies to hepatitis B virus (HBV) surface antigen, hepatitis C virus antibodies, HIV antibodies and Treponema pallidum antibodies were negative. Karyotype examination of peripheral blood was normal (46, XY).

7) Was an autopsy performed, and what were the findings?

Response

Autopsy was not performed.

8) Discussion – add a paragraph at the beginning of the Discussion that summarizes the case and describes what is unique in this case compared to what is available in the literature.

Response

We add a summary of this case at the beginning of the discussion in page 9.

Since this patient did not have typical clinical features and family history of DC except bone marrow failure, diagnosis of this case was led by RNA-sequencing. He developed metachronous rectal cancers after bone marrow failure at the youngest age compared to the age of patients with DC previously reported.
9) The Conclusion section should be added and should include the lessons learned from the presented case.

response

We added the conclusion section in page 11.

In conclusion, this patient developed rectal cancers twice at the youngest onset age compared to other DC patients developed colorectal cancer previously reported. DKC1 would be involved in predisposition to colorectal cancer in young adulthood, therefore, appropriate surveillance may be required, such as fecal occult blood test, digital rectal examination and/or endoscopic examination from the age of 10, considering this case.