# CORRECTION Open Access



# Correction to: Preliminary result of carbon-ion radiotherapy using the spot scanning method for prostate cancer

Yosuke Takakusagi, Hiroyuki Katoh<sup>\*</sup>, Kio Kano, Wataru Anno, Keisuke Tsuchida, Nobutaka Mizoguchi, Itsuko Serizawa. Daisaku Yoshida and Tadashi Kamada

## Correction to: Radiation Oncology (2020) 15:127 https://doi.org/10.1186/s13014-020-01575-7

Following publication of the original article [1], the authors identified minor errors that should be addressed. In the **Abstract**, the original publication read (affected area marked in bold):

Grade 2 acute rectal toxicity was not observed. Grade 2 late urinary toxicity and grade 2 late rectal toxicity were observed in 17 (6.7%) and 3 patients (1.2%), respectively.

The corrected sentence reads:

Grade 2 acute rectal toxicity was not observed. Grade 2 late urinary toxicity and grade 2 late rectal toxicity were observed in 16 (6.3%) and 3 patients (1.2%), respectively.

In **Table 1**, Row 1, the Follow-up duration, months, median (range) originally read 24.3 (4.1–39.5). The corrected reading is 35.3 (4.1–52.9).

The corrected Table 1 is given here.

The original article can be found online at https://doi.org/10.1186/s13014-020-01575-7.

\*Correspondence: hkatoh@kcch.jp Department of Radiation Oncology, Kanagawa Cancer Center, Asahi-ku, Yokohama, Kanagawa 241-8515, Japan



© The Author(s) 2022. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativeccommons.org/licenses/by/4.0/. The Creative Commons Public Domain Dedication waiver (http://creativecommons.org/publicdomain/zero/1.0/) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

**Table 1** Patient characteristics (n = 253)

Characteristics	n (%)
Follow-up duration, months, median (range)	35.3 (4.1–52.9)
Age, years, median (range)	70 (47–86)
T stage	
1c	49 (19.4%)
2a	79 (31.2%)
2b	35 (13.8%)
2c	53 (20.9%)
3a	27 (10.7%)
3b	10 (4.0%)
Pretreatment PSA, ng/ml, median (range)	8.6 (3.33-187)
< 10	147 (58.1%)
10 ≤ 20	73 (28.9%)
20 ≤	33 (13.0%)
Gleason score	
6	14 (5.5%)
7	117 (46.2%)
8	79 (31.2%)
9	43 (17.0%)
10	0 (0.0%)
D'Amico classification	
low	8 (3.2%)
intermediate	88 (34.8%)
high	157 (62.1%)
ADT	
none	9 (3.6%)
neoadjuvant	87 (34.4%)
neoadjuvant and adjuvant	157 (62.1%)
Complications, histories	
Diabetes mellitus	25 (9.9%)
Internal use of anticoagulants	41 (16.2%)
Benign prostate hyperplasia	18 (7.1%)
TURP	4 (1.6%)

 $\it PSA$  prostate specific antigen,  $\it ADT$  androgen deprivation therapy,  $\it TURP$  transurethral resection of the prostate

In **Results, Toxicities,** the original publication read (affected area marked in bold):

Grades 1 and 2 urinary frequency were observed in 36 (14.8%) and 12 (4.7%) patients, respectively.

The corrected sentence reads:

Grades 1 and 2 urinary frequency were observed in 34 (13.4%) and 9 (3.6%) patients, respectively.

In **Results, Toxicities,** the original publication read (affected areas marked in bold):

The late GU toxicity grades were one in 52 patients (20.6%) and two in 17 patients (6.7%). Grade 3 or greater late GU toxicity was not observed. Among

the late GU toxicities, grades 1 and 2 hematuria were observed in 14 (5.5%) and one patient (0.4%), respectively. Grades 1 and 2 urinary frequency were observed in 28 (11.1%) and 11 (4.3%) patients, respectively, and grades 1 and 2 urinary stricture were observed in 5 (2.0%) and 3 (1.2%) patients, respectively.

### The corrected sentences read:

The late GU toxicity grades were one in 52 patients (20.6%) and two in 16 patients (6.3%). Grade 3 or greater late GU toxicity was not observed. Among the late GU toxicities, grades 1 and 2 hematuria were observed in 14 (5.5%) and one patient (0.4%), respectively. Grades 1 and 2 urinary frequency were observed in 26 (10.3%) and 11 (4.3%) patients, respectively, and grades 1 and 2 urinary stricture were observed in 5 (2.0%) and 3 (1.2%) patients, respectively.

In the **Discussion**, an incorrect reference number was used; [37] has been replaced by the correct [36] in the following sentence:

"More than 80% of late toxicities occurred within 2 years after CIRT [36];..."

The correction does not have any effect on the final conclusions of the paper. The original article has been corrected.

Published online: 23 May 2022

### References

 Takakusagi Y, Katoh H, Kano K, et al. Preliminary result of carbon-ion radiotherapy using the spot scanning method for prostate cancer. Radiat Oncol. 2020;15:127. https://doi.org/10.1186/s13014-020-01575-7.

### **Publisher's Note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

### Ready to submit your research? Choose BMC and benefit from:

- fast, convenient online submission
- thorough peer review by experienced researchers in your field
- rapid publication on acceptance
- support for research data, including large and complex data types
- gold Open Access which fosters wider collaboration and increased citations
- maximum visibility for your research: over 100M website views per year

### At BMC, research is always in progress.

Learn more biomedcentral.com/submissions

