Reviewer's report

Title: Are Rare Cancer Survivors at Elevated Risk of Subsequent New Cancers?

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Reviewer: Gregory Gilbert

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Manuscript: Are Rare Cancer Survivors at Elevated Risk of Subsequent New Cancers?

Manuscript Number: BCAN-D-18-02937

Thank you for submitting a manuscript that was relatively free from spelling and grammatical errors. Your efforts to produce error free work are greatly appreciated.

The authors present a paper regarding the survivorship of those with rare cancers noting a knowledge gap in this area and whether they are at risk for subsequent cancers. The purpose of this study was to investigate whether a history of rare cancer increased the risk of subsequent cancer compared to survivors of common cancers.

Abstract

Background: Sentence 2: Make into two sentences. Makes no sense as written. Two separate thoughts.

Methods: Sentence 3: Restate "rare prior cancer prior to enrollment". This is awkward.

Results: Sentence 1: Please revise for clarity. The way it reads you leave readers with the impression you don't have 3 groups.

Conclusions: Sentence 1: Please change opening phrase to, "There is evidence suggesting..."

Background

Line 60: Please change "growing" to "growing body of"
Line 69: The sentence, "A study conducted by Surveillance, Epidemiology,..." is awkward. Please reword.

Line 85: Please provide evidence for this statement.

Line 92: This reviewer believes the selection of your comparison group is wrong. The study should have compared reoccurrence of (any) cancer in those with a primary rare cancer to reoccurrence of (any) cancer in those with a common cancer to reoccurrence of (any) cancer in those without cancer. Three groups. As it reads you have combined the latter two groups.

Methods

Line 115: Awkward. Please revise.

Results

Table 1: Please present percentages and frequencies in parentheses.

Table 1: Please revise title to be more descriptive, something like, "Age, gender, tobacco use, and -degree relative with cancer (percentages and frequencies) of adults enrolled in the Cancer Genetics Network YYYY-YYYY (n=16630)" where "YYYY" are the dates of the registry

Table 1: Please use a lowercase "n" to denote sample size.

Line 140: Please include the number that equates to 10% and 40%.

Line 146: Excellent job of analysis!

Discussion

General comments:

1) Please do not use mathematical operators such as ">

2) Please expand. Please compare and contrast with existing literature. Where does your work fit in with what has been written?

3) Please synthesize your results including a "clinical significance" interpretation of the findings.
Thank you for reporting limitations. However, please elaborate on how these limitations may have affected your results.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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