

REVIEW ARTICLE

Effect of exercise on colorectal cancer prevention and treatment

Dear Editors and Reviewers;

Thank you very much for reviewing our manuscript entitled "colorectal cancer and exercise"

We have revised the manuscript according to your suggestions.

Reviewer 1:

Answer : According to your suggestions, the introduction and biomarkers part has been edited.

Changes :

-We added a paragraph to the introduction.

The studies showed the benefit of increased physical activity after the known predictors (stage, tumor differentiation, treatment status, etc.) were adjusted in the analysis. The majority of the studies also suggested that the beneficial effect of physical activity was independent of body mass index (BMI) and physical fitness [5].

-Other biomarkers part was modified. We have reduced other biomarkers section.

In colorectal cancer, there are other suggested mechanisms (micro RNA, global DNA methylation, intestinal microbiota, colon transit time, mitochondrial dysfunction) for the effects of exercise on tumorigenesis.

Reviewer 2:

Answer : According to your suggestions, the changes were made.

Changes:

-Abstract section has been edited.

-The title of manuscript was modified. Title; **Exercise effect on the prevention and treatment of colorectal cancer**

- Figure 1 and Table 1 were added.

Figure 1: Biological potential pathways as explanatory mechanisms of the association between physical activity and primary and secondary prevention of colorectal cancer/Potential biomarkers in secondary prevention

Table 1: Ongoing Trials on colorectal cancer and exercise

-Gut microbiota section has been edited.

In recent years, it has been suggested that intestinal microbiota is related to the incidence and progression of colorectal cancer and may predict the response to immunotherapy treatments. Diet and lifestyle changes shape the intestinal microbiota ^[125,126] . Many studies have shown that some of the gut microbiota such as anaerobic bacteria significantly increased in colorectal cancer patients, but more investigations are required to assess the importance of these bacteria and their metabolites in the pathogenesis of CRC are required. However, it is not clearly known how lifestyle affects the anticancer immune response ^[127] .

-We have looked for any studies shown that athletes or gymgoers have a lower chance to develop cancer. There is no clear information about this topic.

- Are there any differences between aerobic and anaerobic exercises in preventing or treating cancer? The majority of cancer prevention and exercise studies are observational studies and they have often tested aerobic exercise programs.

-The correction needed for English writing has been done.

Reviewer 3:

Answer : The correction needed for English writing has been done.

We have corrected all spelling errors and grammar mistakes in the manuscript.

Editorial Office Comments:

We have reviewed the article. The references and title page was updated.

The correction needed for English writing has been done. Language certificate added to files.