



## The Relationship between Statins and Survival of Colorectal Cancer

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### Dear Editor-in-Chief

A number of observational, experimental and meta-analysis studies have proven the protective effects of Statins against the risk of some cancers. Statins can affect the survival and mortality caused by the melanoma, prostate, ovarian and kidney cancer (1). The relationship between Statins and increasing the patients' survival with colorectal cancer has been also proven in a number of cohort studies; however, the results of these studies are controversial. In a cohort study, the hazard ratio (HR) of mortality was equal to 0.71 (CI of 95%, 0.61-0.84) in the group, who received Statins, compared to the control group. There was a dose-response relationship between statin use and survival time (2).

However, there was not any significant relationship between the patients' survival of colorectal cancer and statin use according to a case-control study (3). In these circumstances, the use of meta-analysis results, which provide the highest level of scientific inferences, is essential to achieve a clear conclusion to the effects of Statins on the patients' survival of colorectal cancer. According to research the statin use before diagnosis of colorectal cancer was along with a significant decrease in the HR of all-cause of mortality 0.73(CI of 95%, 0.61-0.88) and the HR of cancer-specific mortality

(CSM) 0.80 (CI of 95%, 0.77-0.84). Statin use after diagnosis of cancer also significantly reduces the HR of CSM 0.70(CI of 95%, 0.60-0.82) and an insignificant reduction in the HR of all-cause mortality 0.93(CI of 95%, 0.68-1.27) (4). In another systematic review and meta-analysis, the obtained results were similar to study by Ling et al (4), so that the statin use before diagnosis of colorectal cancer significantly decreased the HR of all-cause mortality 0.70(CI of 95%, 0.54-0.91) and the HR of CSM 0.80(CI of 95%, 0.74-0.86).

Statin use after diagnosis of cancer also significantly reduced the HR of the all-cause mortality 0.76(CI of 95%, 0.68-0.85) and the HR of CSM 0.70(CI of 95%, 0.60-0.81) (1). The statin use, before or after diagnosis of colorectal cancer led to a significant reduction in the all-cause mortality and cancer-specific mortality. Therefore, the administration of Statins in patients with colorectal cancer led to a reduction in patients' mortality and increased survival rate of patients.

### Conflict of Interest

The authors declare that no competing interests exist.



## References

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