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Comment on "dietary intake of advanced glycation end products (AGEs) and mortality among individuals with colorectal cancer"



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With interest we read the article entitled "Dietary Intake of Advanced Glycation End Products (AGEs) and Mortality among Individuals with Colorectal Cancer" by Veronika Fedirko et al. (Mao et al., 2021). We noted the association reported between advanced glycation end-products (AGEs) and mortality after colorectal cancer (CRC) diagnosis. In this article, dietary AGEs were estimated in 5801 CRC patients using a reference dietary AGE food composition database, which is based on three best characterized AGEs including the N $^{\epsilon}$ -[carboxymethyl]lysine (CML), N $^{\epsilon}$ -[1-carboxyethyl]lysine (CEL), and N $^{\delta}$ -[5-hydro-5-methyl-4-imidazolon-2-yl]-ornithine (MG-H1). They found no association of baseline dietary intake of AGEs with CRC-specific and all-cause mortality.

AGEs accumulate naturally with age in the body and are created when certain foods are cooked at high temperatures (Sarmah & Roy, 2022). Patients with high blood sugar levels have a high risk of producing too many AGEs (Hosseini et al., 2021). In this study, a positive association between AGEs and all-cause or CRCspecific mortality in patients without type II diabetes was found. One weakness of this study is that they consider only baseline AGEs rather than the evolution of change of AGEs. Patients' dietary behavior was likely to be changed after the diagnosis of cancer. Additionally, medications such as corticosteroids can have an effect on the blood sugar levels in patients without a previous history of diabetes. Furthermore, we do not know if AGEs are directly or indirectly affected by the tumor cells or treatment. As AGEs can be detected in the human skin through AGE reader, which is non-invasive and feasible in the clinic it would be interesting to

investigate the impact of the change of AGEs on mortality in CRC patients in further studies (Yavuz & Apaydin, 2021). Nonetheless, the clinical implication of this study is relatively limited as we cannot yet recommend adjusting patients' food intake to reduce AGEs either in the prevention or treatment phase of cancer.

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Competing interests

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