Cardiovascular Risk Status Can Influence the Colorectal Cancer Screening Strategy

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The study conducted by Kim et al. generated new data that confirmed the relationship between colorectal neoplasia (CN) and cardiovascular disease. By applying strict inclusion- and exclusion criteria, the authors obtained the largest asymptomatic, average-risk cohort that has ever been reported in literature. They investigated the role of carotid artery ultrasonography as a noninvasive technique to evaluate carotid artery atherosclerosis and to correlate these findings with CN risk. Although an association was found between CN and carotid artery stenosis, the clinical impact of the data generated by this study is relative small. Moreover, it was shown by the authors that waist circumference is the strongest factor associated with the development of adenomatous polyps. This confirms literature data that individuals with a metabolic syndrome are at higher risk to develop CN [1]. It is clear that common (unknown) environmental risk factors and a (genetic) predisposition drive this relationship. The authors suggested that inflammation could be the ultimate common trigger. Based on clinical and preclinical data, it is premature to bring everything back to inflammation and to hypothesize that this is the common mechanism.

Current international guidelines still recommend to start screening for CN in average-risk individuals at age 50 years [2, 3]. These guidelines are based on the prevalence of adenomatous polyps in a given population and a cost-benefit analysis. The asymptomatic individuals in-

vestigated in the study by Kim et al. were between 40 and 59 years of age. The overall prevalence of polyps (31.4%) is high in comparison with recent data from Rundle et al. [4]. A possible explanation is the exclusive male population that was studied. Regula et al. [5] have already shown a sex-related difference in polyp prevalence. The prevalence was equivalent in a cohort of men between 40 and 49 years of age to a cohort of women between 50 and 59 years of age. An important issue of the current study is also the high proportion of advanced lesions (>10%). It is remarkable that other series showed a prevalence of advanced neoplasms that ranged between 2 and 4%.

In conclusion, the study by Kim et al. confirms the relationship between cardiovascular disease and the occurrence of CN. Although important, this finding generates unanswered questions such as the underlying mechanism of the relationship, the impact on screening for CN, etc. In the future, it might be that healthy individuals are noninvasively screened for cardiovascular risk. Based on this risk status, the starting age for CN screening could be determined. Although interesting, further well-designed, prospective studies are necessary.

References

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