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The obesity paradox in colorectal cancer: recent evidence on prognosis and body composition

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INTRODUCTION: Obesity is recognized as a significant risk factor for the development of colorectal cancer (CRC) and is frequently associated with unfavorable outcomes. Some studies, however, suggest a possible ‘obesity paradox,’ in which patients with a high body mass index (BMI) have a more favorable clinical course. In light of this controversy, this integrative review analyzed the influence of obesity on clinical outcomes in CRC. **METHODS:** This integrative literature review followed PRISMA-ScR guidelines and systematically searched PubMed for publications from 2020 to 2025 that addressed the guiding question: ‘Do patients with obesity have a worse prognosis in CRC?’ After initial screening of 95 articles, 47 met the inclusion criteria for qualitative analysis. **RESULTS:** The most frequently assessed parameters were BMI and visceral fat. Of the 18 studies that used BMI as the primary indicator, 33.3% identified worse outcomes among patients with overweight or obesity, 27.8% reported a more favorable prognosis, and 38.9% found no statistically significant association. Among the 12 articles that analyzed visceral fat, seven showed a correlation with worse outcomes. The remaining studies investigated factors such as sarcopenic obesity, chronic inflammation, gene-expression profiles, and changes in lipid metabolism and identified possible mechanisms linking obesity to a worse prognosis. **DISCUSSION:** The findings highlight the relevance of body composition in determining prognosis among patients with CRC. Excess visceral fat, high BMI, and low skeletal muscle mass were consistently associated with less favorable oncologic outcomes. Systemic inflammation and nutritional status appear to act synergistically in CRC progression and may represent therapeutic targets and prognostic biomarkers. This evidence reinforces the limitations of using BMI alone for stratification, which may partly explain the so-called ‘obesity paradox.’ **CONCLUSION:** Prognostic assessment in patients with colorectal cancer should extend beyond BMI. Adopting more comprehensive, evidence-based approaches may improve risk stratification and contribute to more personalized clinical management.

KEYWORDS: Obesity; Colorectal cancer; Prognosis; Body composition.