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Colorectal Cancer Epidemiology in Tanzania: Patterns in Relation to Dietary and Lifestyle Factors

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Abstract

Background: Chronic noncommunicable diseases are increasingly captured as contributing to morbidity and mortality in low- and middle-income countries. **Aim:** This study aimed to investigate the epidemiology of colorectal cancer and the potential modifiable local risk factors in Tanzania. **Methods:** A cross sectional retrospective chart audit study was conducted to establish the pattern and distribution of colorectal cancer, The Food Frequency Questionnaire and the Step® survey tool were used to collect data. Descriptive statistics, χ^2 tests, and regression analysis were used and augmented by data visualization to display risk variable differences. **Results:** Tanzania's colorectal cancer incidence has increased six times in the last decade in which major towns and cities of Dar es Salaam (20.2 per 100,000), Pwani (7.2 per 100,000), Kilimanjaro (4.4 per 100,000), Arusha (4.2 per 100,000), and Morogoro (3.6 per 100,000) had the highest percentage. This study reported that, almost 45% of the participants were hypertensive. Two major dietary patterns, namely “healthy” and “western”, existed among the study sample. Obesity was found in 25% of participants, whereas overweight was present in 28%; of note, the prevalence was higher in females (26.9%) than in males (23.6%) respectively. The prevalence of alcohol consumption was 21.5%, with a significantly lower rate of smoking (12.2%) noted within the study subjects. Both alcohol consumption and tobacco smoking were more common in men than women (22.7 vs. 20.6% and 24.5 vs. 3.2%, respectively). The prevalence of vigorous, moderate, and low physical activity for both sexes was 18.6%, 54.1% and 42.3%, respectively. **Conclusion:** Evidence from this study demonstrate that, like other NCDs CRC is increasing in Tanzania. Colon cancer is increasing at higher rate than rectal cancer seeming to align with change in lifestyle. Major towns and cities had the highest share of CRC patients. Diet, obesity, tobacco smoking, alcohol consumption, and sedentary behavior have potential role to play in the rising trend of CRC and other NCDs. We recommend a large longitudinal study with robust methodology which can establish cause and effect relationships between specific lifestyle behaviors and the incidence of colorectal cancer.