

Circulating microrna-21 as a prognostic biomarker in filipino patients with colorectal cancer: A prospective cohort study

Maria Liza Santos

University of the Philippines Manila, Philippines

Statement of the Problem: Colorectal cancer (CRC) remains a leading cause of cancer-related morbidity and mortality in the Philippines. Recent studies have highlighted the potential of microRNAs (miRNAs) as non-invasive biomarkers for cancer prognosis. This study investigates the prognostic value of circulating microRNA-21 (miR-21) in Filipino CRC patients.

Methodology: A prospective cohort study was conducted at three tertiary hospitals in Metro Manila between January 2022 and April 2024. A total of 120 histologically confirmed CRC patients were enrolled. Blood samples were collected preoperatively, and circulating miR-21 levels were quantified using qRT-PCR. Patients were followed for 18 months post-surgery to assess recurrence and survival. Correlations between miR-21 expression, clinicopathological features, and outcomes were statistically analyzed using Kaplan-Meier and Cox regression models.

Results: Circulating miR-21 demonstrates potential as a non-invasive prognostic biomarker in Filipino CRC patients. Its inclusion in preoperative risk stratification may aid in personalized management and follow-up strategies. Further large-scale multicenter trials are recommended to validate its clinical utility.

Biography

Maria Liza Santos, MD, PhD, is a clinical researcher and Assistant Professor at the University of the Philippines Manila, College of Medicine. She specializes in molecular oncology and biomarker discovery, with a research focus on gastrointestinal cancers in Southeast Asian populations. Dr. Santos has published over 30 peer-reviewed articles and actively collaborates with international cancer genomics initiatives. Her work bridges translational research and clinical application, contributing significantly to biomarker-driven precision medicine in the Philippines.

Received: January 12, 2025; **Accepted:** January 13, 2025; **Published:** March 11, 2025
