

Survival rate and prognostic factors for colorectal cancer in Sabah, Borneo, Malaysia: A retrospective cohort of a population-based study

ABSTRACT

Background: Colorectal cancer is a major public health problem with significant number of cases and death in the population. This study aimed to determine the 5-year overall survival rate and the prognostic factors for colorectal cancer patients in Sabah. Methods: This was a retrospective cohort study conducted using secondary data from Malaysian National Cancer Registry (MNCR) database. A 5-year overall survival and the median survival time were determined with Kaplan-Meier survival curve. Cox regression analysis was done to determine the prognostic factors on survival. Results: A total of 1,152 patients were included in this study. The majority of the patients had colon cancer and presented at late stage (stage III and IV) as compared to early stage (stage I and II). From the analysis, the 5-year overall survival for colorectal cancer was 23.2% (95% CI: 21.8, 24.6) and the median survival time was 16 months (95% CI: 14.3, 17.7). Higher survivals are seen in males (23.6%, 95% CI: 20.4, 24.7), aged 50-74 years old (24.2%, 95% CI: 22.4, 26.0), Chinese (25.5%, 95% CI: 23.0, 28.0), lived in Keningau (25.6%, 95% CI: 20.8, 30.4), colon as primary tumor site (24.5%, 95% CI: 22.5, 26.4), diagnosed with stage I (55.6%, 95% CI: 48.7, 62.5) and received surgery with chemotherapy or radiotherapy (31.3%, 95% CI: 27.8, 34.8). The significant prognostic factor was the stage at diagnosis. Patients with stage IV colorectal cancer (HR: 11.18; 95% CI: 3.48, 35.93) had eleven times risk of dying as compared to stage I. Conclusion: The survival rate for colorectal cancer patients in Sabah was comparatively lower than other states in Malaysia and in some Asian countries. Those patients who presented at later stage had poorer survival. Health promotion and community-based screening program should be emphasized in addition to encouraging early diagnosis to improve survival.