

INTISARI

***MICROSATELLITE INSTABILITY* SEBAGAI PREDIKTOR TERHADAP *DISEASE-FREE SURVIVAL* PADA PENDERITA KANKER KOLOREKTAL YANG MENERIMA KEMOTERAPI ADJUVAN BERBASIS 5-FLUOROURASIL DI RSUP DR. SARDJITO YOGYAKARTA**

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Latar Belakang. Kanker kolorektal (KKR) merupakan kanker dengan angka insidensi yang tinggi. *Disease-free survival* KKR belum meningkat secara signifikan. Penentuan status *microsatellite* menjadi sangat penting terkait *survival* dan kemoterapi adjuvan untuk KKR stadium awal, terutama stadium II. Beberapa penelitian menunjukkan bahwa KKR dengan *microsatellite instability* (MSI) memiliki *survival* yang lebih panjang dibandingkan *microsatellite stable* (MSS), tetapi tidak mendapatkan manfaat dari kemoterapi adjuvan berbasis 5-Fluorourasil (5-FU).

Tujuan Penelitian. Menganalisis perbedaan *disease-free survival* (DFS) penderita KKR dengan MSI dan MSS yang menerima kemoterapi berbasis 5-FU.

Metode Penelitian. Data rekam medis dari pasien yang terdiagnosis KKR stadium II dan III dan mendapat kemoterapi adjuvan dari Juni 2010 hingga Agustus 2018 diteliti secara retrospektif. Data demografi, klinikopatologi, terapi, dan *survival* diidentifikasi. Jaringan tumor dilakukan pemeriksaan status *microsatellite*. Analisis DFS menggunakan kurva Kaplan-Meier. Status *microsatellite* sebagai prediktor *survival* dianalisis dengan *Cox proportional hazard models*.

Hasil. Sebanyak 45 penderita KKR dianalisis dengan median durasi *follow-up* 28,75 bulan, terdiri dari 32 (71,11%) penderita MSI dan 13 (28,89%) penderita MSS. Median usia adalah 57 tahun. Sebanyak 39 (86,7%) penderita menerima kemoterapi 5-FU dan kombinasi, sisanya 6 (13,3%) penderita menerima kemoterapi berbasis 5-FU. Rerata DFS pada kelompok MSI yang diterapi dengan kemoterapi berbasis 5-FU adalah 11,9 bulan, lebih pendek dibandingkan pada kelompok MSS, yaitu 57,7 bulan ($P = 0,490$). Pada analisis univariat, status *microsatellite* tidak menunjukkan perbedaan bermakna sebagai faktor yang mempengaruhi DFS.

Simpulan. *Disease-free survival* KKR dengan MSI tidak menunjukkan perbedaan bermakna dibandingkan KKR dengan MSS yang menerima kemoterapi berbasis 5-FU ($P = 0,490$).

Kata kunci : *microsatellite instability* (MSI), *disease-free survival* (DFS), kanker kolorektal

ABSTRACT

MICROSATELLITE INSTABILITY AS A PREDICTOR OF DISEASE-FREE SURVIVAL IN PATIENTS WITH COLORECTAL CANCER WHO HAD 5-FLUOROURACIL ADJUVANT CHEMOTHERAPY IN DR. SARDJITO HOSPITAL YOGYAKARTA

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Background. Colorectal cancer (CRC) is a malignancy with high incidence rate. There is still no significant improvement of disease-free survival (DFS) in CRC. Determination of the microsatellite status is important in terms of survival and adjuvant chemotherapy, especially for stage II CRC. Some studies demonstrated that CRC with microsatellite instability (MSI) had significant longer survival than the ones with microsatellite stable (MSS), but had no benefit from 5-Fluorouracil (5-FU) based adjuvant chemotherapy. We therefore provided this retrospective trial to address these critical clinical questions.

Objective. This study was undertaken to measure the differences of DFS in patients with MSI and MSS CRC treated with 5-FU based chemotherapy based on MSI status.

Methods. Medical record of patients with stage II and III CRC diagnosed and started adjuvant chemotherapy from June 2010 to August 2018 were retrospectively reviewed. Demography, clinicopathological, treatment, and survival data were collected. Analyses of DFS were calculated using Kaplan-Meier Method. Microsatellite status as survival predictor was estimated using Cox proportional hazard models.

Results. Of the 45 patients, 32 (71.11%) had MSI and 13 (28.89%) had MSS were analyzed at a median follow-up 25.75 months. Median age was 57 years old. Thirty-nine (86.7%) patients had 5-FU and combination chemotherapy, 6 (13.3%) patients had 5-FU based chemotherapy. Mean DFS of MSI treated with 5-FU based chemotherapy was clinically shorter than MSS, which were 11.9 and 57.7 months respectively ($P = 0.490$). Univariate analysis failed to show a difference between MSI and MSS groups with respect to DFS.

Conclusions. Patients with MSI CRC treated with 5-FU based chemotherapy showed no significant difference in DFS compared to MSS CRC ($P = 0.490$).

Keywords : microsatellite instability (MSI), disease-free survival (DFS), colorectal cancer