Recursive Partitioning Analysis dan Diagnosis-Specific Graded Prognostic Assessment sebagai Indeks Prognostik Pasien Metastasis Otak yang Menjalani Radioterapi = Recursive Partitioning Analysis and Disease-Specific Graded Prognostic Assessment as Prognostic Indices in Patients with Brain Metastases After Radiotherapy

Ayu Santika Santaningrum, author

Abstrak

Tujuan: Menilai kesintasan pasien metastasis otak yang menjalani radioterapi di RSUPN Dr. Cipto Mangunkusumo dan kesesuaian terhadap stratifikasi prognostik indeks Recursive Partitioning Analysis (RPA) dan Diagnosis-Specific Graded Prognostic Assessment (DS-GPA). Metode: Dilakukan studi retrospektif pada 51 pasien metastasis otak yang menjalani radiasi whole brain di RSCM pada Januari 2017-Desember 2019. Data klinis dikumpulkan melalui rekam medis. Stratifikasi pasien dilakukan berdasarkan indeks RPA dan DS-GPA. Kesintasan keseluruhan (OS) diukur sejak pasien menyelesaikan radioterapi hingga meninggal dunia atau follow-up terakhir. Kinerja indeks RPA dan DS-GPA dibandingkan menggunakan model regresi Cox. Kesintasan dinilai dengan uji Kaplan-Meier dan analisis model Cox proportional hazard. Hasil: Median kesintasan keseluruhan subyek adalah 5,3 bulan. Indeks RPA menunjukkan stratifikasi yang signifikan pada primer kanker paru dan kelompok adenokarsinoma paru. Stratifikasi DS-GPA signifikan pada primer kanker payudara dan kanker paru. Stratifikasi RPA lebih unggul dibandingkan DS-GPA pada primer kanker paru (5,752; IK95% 1,523- 21,723; p=0,004 vs 3,231; IK95% 1,008-10,350; p=0,039). Jenis kelamin (p=0,009), KPS (p=0,030), dan jumlah lesi intrakranial (p=0,023) merupakan faktor prognostik yang mempengaruhi kesintasan hidup pasien metastasis otak. Kesimpulan: Dalam populasi studi ini, stratifikasi prognostik indeks DS-GPA sesuai untuk diterapkan pada pasien metastasis otak dengan primer kanker payudara dan kanker paru. Stratifikasi indeks RPA pada kelompok primer kanker paru lebih baik dibandingkan DS-GPA.

.....Aims: This study was aimed to assess survival of patients with brain metastases after radiotherapy in RSCM and to confirm the validation of Recursive Partitioning Analysis (RPA) and Diagnosis-Specific Graded Prognostic Assessment (DS-GPA). Materials and methods: This retrospective study included 51 patients treated with whole brain radiation between 2017 and 2019. Clinical data collected from hospital medical records were reviewed. Patients were classified by RPA and DS-GPA. Overall survival (OS) was calculated from last day of radiotherapy to death or last follow-up. The performances of RPA and DS-GPA were compared using Cox regression model. Survival was determined using the Kaplan-Meier curves and Cox proportional hazards model. Results: Median OS in this population study was 5.3 months. RPA provided significant stratification in lung cancer primary group and lung adenocarcinoma subgroup. Prognostic stratification of DS-GPA was valid in breast cancer and lung cancer groups. RPA was superior to DS- GPA in patients with lung cancer primary (5.752; 95%CI 1.523-21.723; p=0.004 vs 3.231; 95%CI 1.008-10.350; p=0.039). Sex (p=0.009), KPS (p=0.03), and number of brain lesions (p=0.023) were significant independent prognostic factors for survival in brain metastatic patients. Conclusions: In this study population, prognostic stratification of DS-GPA was valid in brain metastatic patients with breast and lung cancer primaries. RPA was valid and performed better stratification than DS-GPA in patients with lung

cancer primary.