O1.02. NEW GRADED PROGNOSTIC INDEX FOR RENAL CELL CARCINOMA PATIENTS WITH BRAIN METASTASES (RCCBM)
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BACKGROUND: Diagnosis-Specific Graded Prognostic Assessment (DS-GPA) is frequently used for prognosis for RCCBM. We evaluated DS-GPA plus other potential prognostic factors for overall survival (OS) in RCCBM patients treated at a single tertiary care institution in a contemporary cohort. METHODS: With IRB approval, the Cleveland Clinic’s database was used to identify RCCBM patients treated between 2000 and 2010. OS from the diagnosis of RCCBM was the primary end point. Cox proportional hazards models with stepwise variable selection were used for data analysis.

RESULTS: One hundred and seventy-eight patients were included for this analysis. Karnofsky performance scale (KPS) was 90-100 in 89 patients (52%), 70-80 in 63 (38%) and <70 in 48 (10%) patients. Estimated median PFS is currently 7.0 months (95% C.I. 5.7-9.9). Median OS for the entire group was 14.1 months (95% C.I. 10.5-16.9). GPA for RCC is derived from KPS and the number of brain metastases present. GPA was prognostic for survival (p = .003); however the separation between the best prognosis groups was not robust and KPS, as defined by the GPA (90-100 vs. 70-80 vs <70) was not significantly associated with overall survival (p = .21). KPS (≥ 80 vs <80, Hazard ratio (HR) = 1.84 (1.16-2.92)), number of brain metastases (1 vs 2-4 vs ≥ 5, HR = 1.30 (1.13-1.99)), low hemoglobin (No vs Yes, HR = 1.63 (1.11-2.39)) and primary controlled (Yes vs No, HR = 1.84 (1.20-2.82)) were independently prognostic for survival (proportional hazards model, stratified by the time period brain metastases were diagnosed, and a stepwise selection algorithm). Applying different coding and weights, points were designated for each prognostic variable and three prognostic groups can be defined: unfavorable (<7 points), intermediate (7 points) and favorable (>7 points) were defined. Median OS was 7.5 months, 14.0 months and 27.2 months respectively (p < .0001). CONCLUSIONS: A revised DS-GPA for Renal Cell Carcinoma with brain metastases is proposed.