

Journal Watch Article by Dr Vincent Thai

Title : Prognostication in Advanced Cancer: A Study Examining an Inflammation-Based Score

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Abstract :

Context. Prognostication in advanced cancer is challenging. Biomarkers of systemic inflammation (C-reactive protein and albumin) combined in the modified Glasgow Prognostic Score (mGPS) have been used to assist prognostication in various cancer types.

Objectives. The aim of this study was to examine whether an inflammation-based prognostic score (mGPS) is useful in prognostication in advanced cancer patients.

Methods. Cancer patients who had biomarkers (C-reactive protein and albumin) recorded were allocated an mGPS ranging from 0e2. Groups were compared using Jonckheere-Terpstra and Chi-squared tests. Survival analyses were carried out using Kaplan-Meier and multivariate Cox regression models.

Results. A total of 296 patients were included, and a representative subgroup of 102 had biomarkers recorded. The mGPS was predictive of death ($P=0.014$) adjusted for sex, cancer site, age, hemoglobin, and white cell count. Patients with an mGPS of 2 had 2.7 times the risk of death of those with an mGPS of

0 ($P = 0.011$). Patients with an mGPS less than 2 had an 86.1% and 74.3% chance of being alive at two and four weeks, respectively.

Conclusion. A role for the mGPS in prognostication near the end of life is suggested. Biomarkers (e.g., mGPS) may assist clinical decisions as to whether intensive treatments are appropriate and may facilitate end-of-life care planning.

Strengths :

- Good attempt to use the inflammatory markers to help with short term prognosis.

- Survival curves separated reasonably for the different categories.

Weaknesses :

- Unfortunately, the mGPS score of 2 which implies more inflammation did not help in any additional prognostic accuracy.

- Estimated survival of either 2 or 4 weeks may not be relevant in some clinical scenarios as these time cut off points are rather close to each other.

- Single center and retrospective study with a relatively small number of patients.

- More than half of the patients did not have the biomarkers recorded. Median follow up was somewhat short at 3.86 weeks.

Relevance to Palliative Care :

- It is advantageous to have objective inflammatory markers to help with short term prognosis.

- Inflammatory markers may be helpful in identifying a subgroup of patients who are going to survive by the 2 or 4 week mark with a mGPS score of 0 or 1 but not helpful in identifying patients who are going to survive with the mGPS score of 2.