

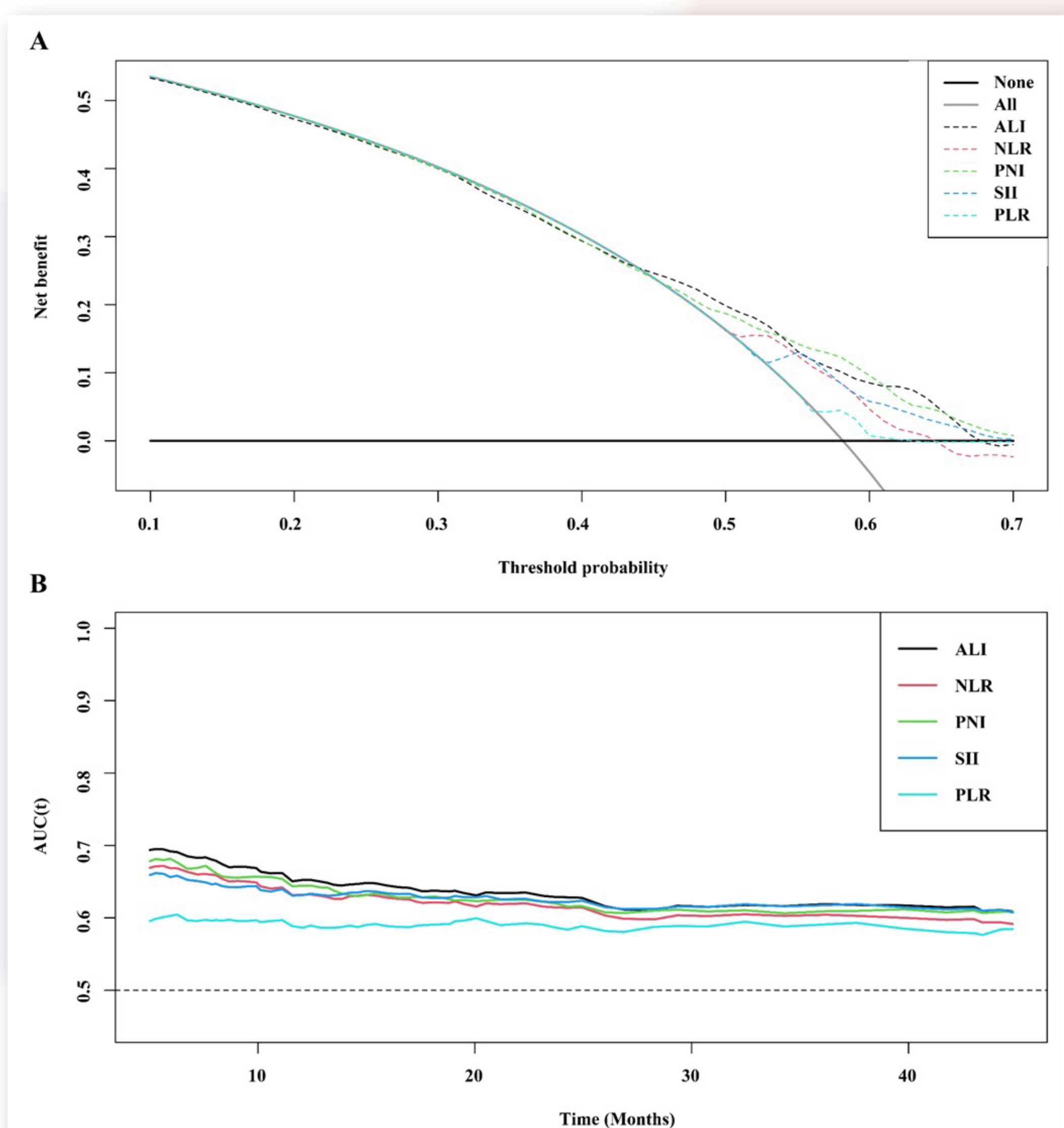
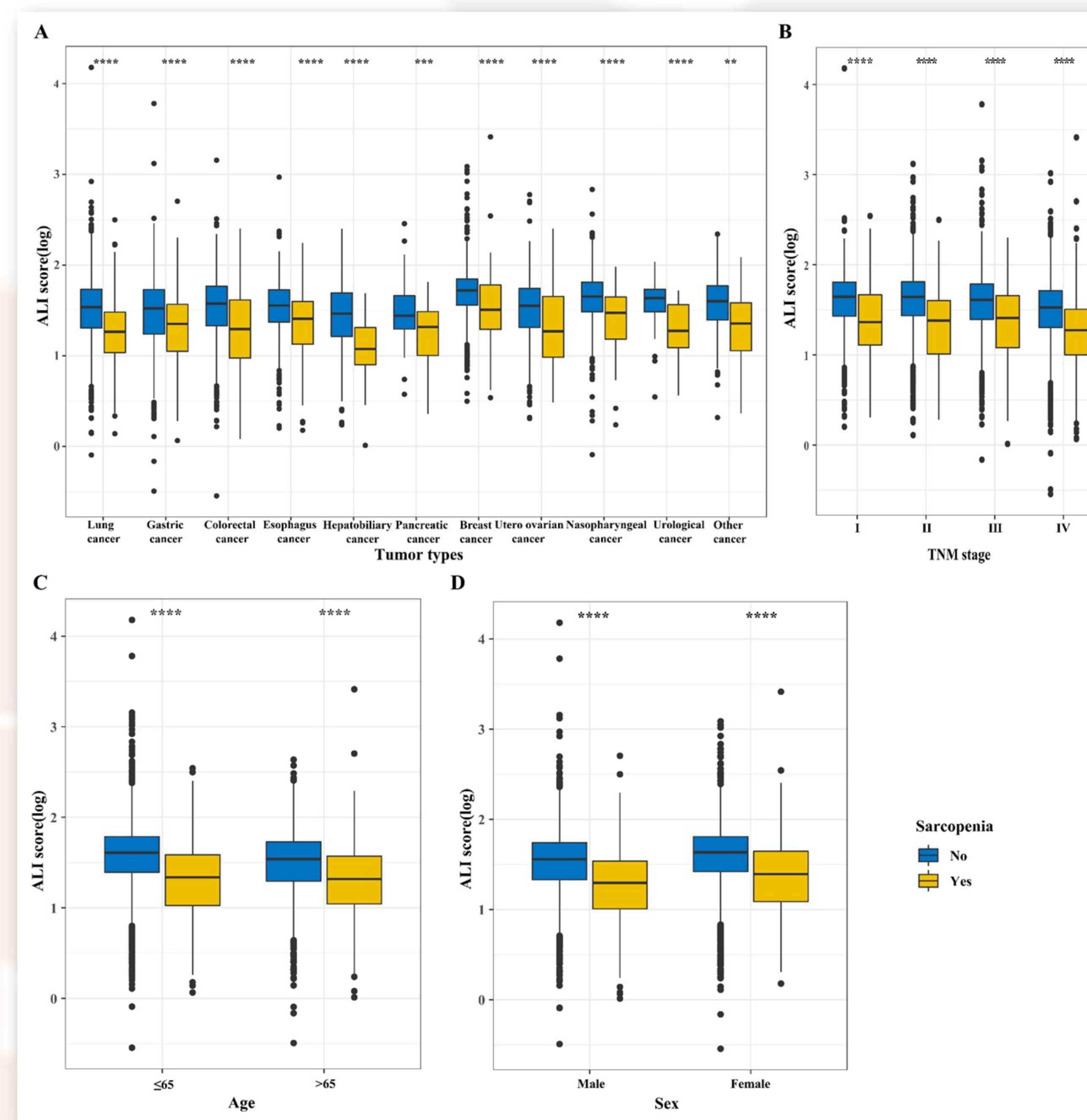
Association of Systemic Inflammation and Malnutrition with Survival in Patients with Cancer Sarcopenia

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Background: Systemic inflammation and malnutrition are correlated with cancer sarcopenia and have deleterious effects on oncological outcomes. However, the combined effect of inflammation and malnutrition in patients with cancer sarcopenia remains unclear.

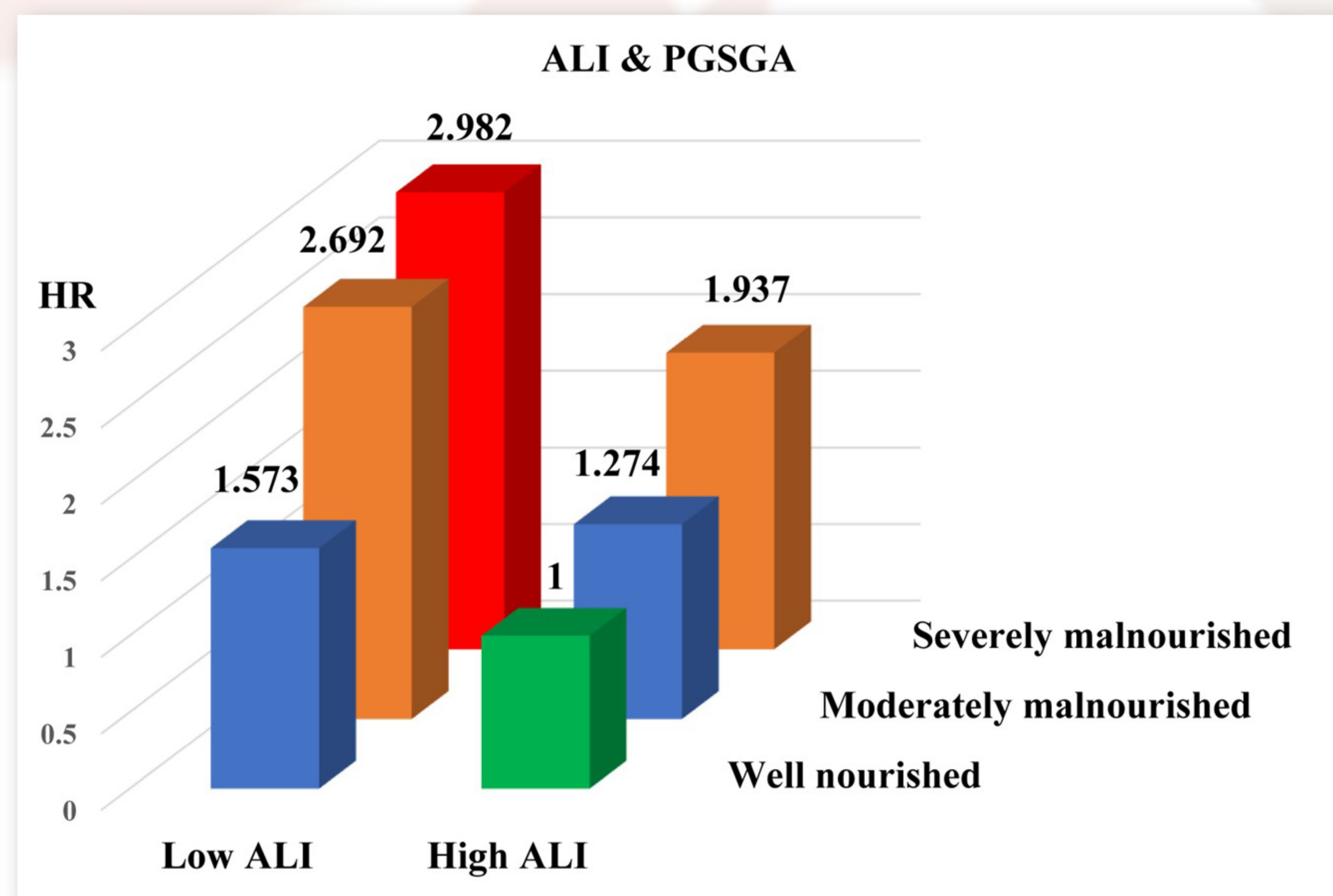
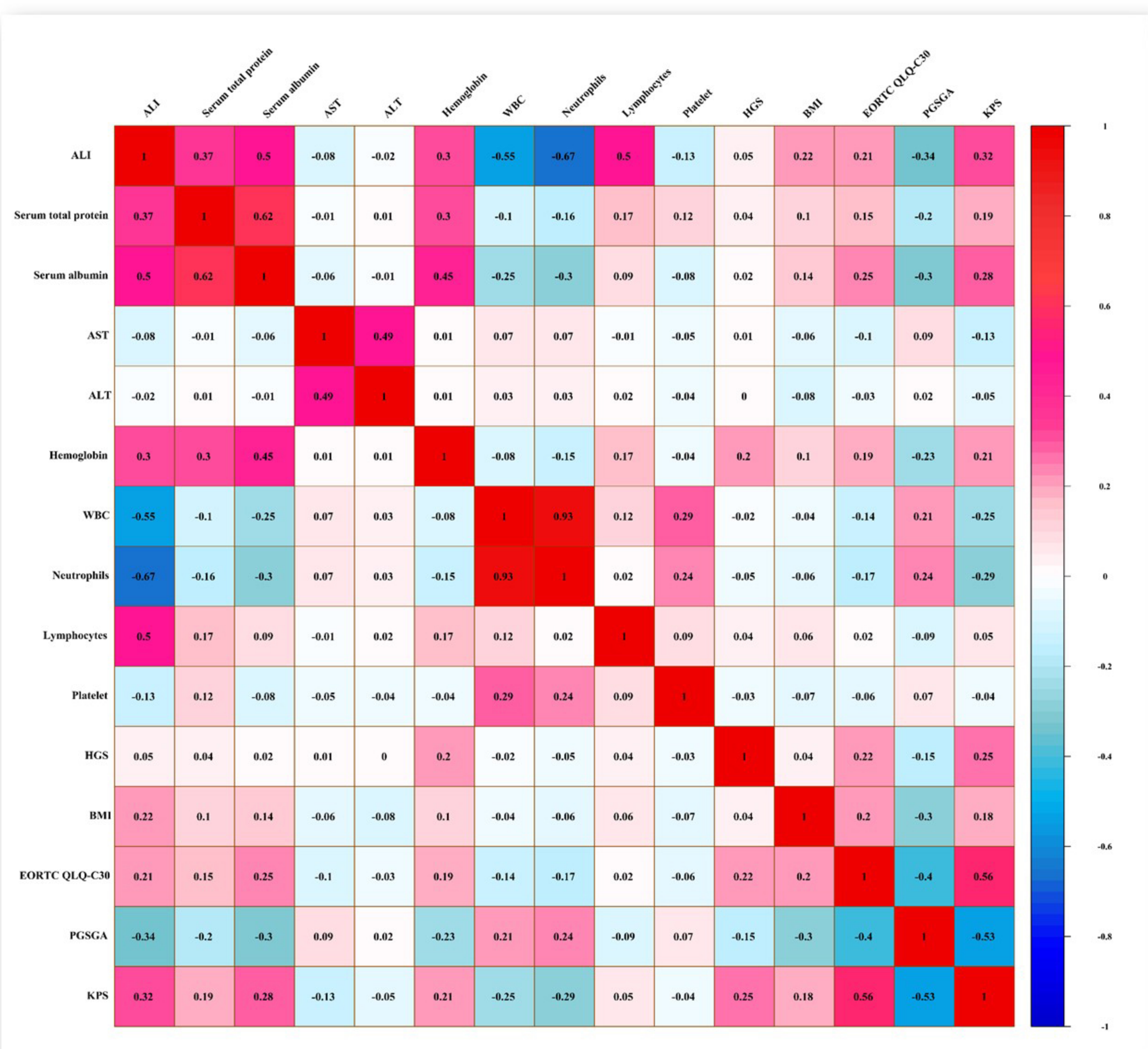
Methods: We retrospectively collected information on 1204 patients diagnosed with cancer sarcopenia and selected the optimal inflammation marker and performed the survival analyses and combined analysis.



The prognosis for patients in the low ALI group was worse than that of patients in the high ALI group (HR [95%CI] = 1.706 [1.381-2.108], P<0.001). When ALI was divided into quartiles, we observed decreased ALI scores strongly correlated with decreased overall survival (OS). Patients with both low ALI and severe malnutrition (vs. patients with high ALI and well-nourished) had nearly 3-fold death risk (HR [95%CI] = 2.982 [2.021-4.399], P<0.001).

Results: Among the 1204 patients, the mean (SD) age was 64.5 (11.4%) and 705 (58.60%) were male. The best indicator of inflammation we selected was advanced lung cancer inflammation index (ALI) in EPCC. The patients were categorized into the high ALI group (≥ 18.39) and the low ALI group (< 18.39) according to the optimal survival cut-off curve.

Subgroup analysis showed a significant interactive association between ALI and death risk in terms of age (P for interaction=0.038) and TNM stage (P for interaction=0.018).



Conclusion: The inflammation indicator of ALI was better than NLR, PNI, SII, and PLR in patients with cancer sarcopenia. Inflammation combined with severe malnutrition has a nearly 3-fold death risk, suggesting that reducing systemic inflammation, strengthening nutritional intervention, and improving skeletal muscle mass are necessary.