

PROSTATE CANCER

Platelet-to-lymphocyte ratio predicts prostate cancer prognosis

A newly published study has shown that an elevated platelet-to-lymphocyte ratio (PLR) predicts worse outcomes in patients with prostate cancer. These findings also serve as further evidence that systemic inflammation increases tumour progression.

In a retrospective study, PLRs were assessed in a total of 374 patients with prostate cancer who received radiotherapy between 1997 and 2007. After a mean follow-up duration of 87 months, patients with a pretreatment PLR ≥ 190 had significantly worse distant-metastases-free survival (MFS), cancer-specific survival (CSS) and overall survival (OS) compared with patients with a PLR < 190 . No statistically significant differences were detected in biochemical-disease-free survival or time to salvage systemic therapy between groups.

On multivariate analysis, which adjusted for a range of tumour variables including Gleason score, tumour T-stage and serum PSA level, associations with MFS, CSS

and OS remained statistically significant, suggesting that PLR ≥ 190 is a robust indicator of inferior prognosis in patients with prostate cancer.

The authors note that these findings build upon previous research into neutrophil-to-lymphocyte ratios (NLR), where a significant association was detected between NLR and MFS, but not OS or CSS. Both platelets and lymphocytes might, therefore, have an important role in the progression of prostate cancer.

Increased PLR represents a simple test, which could potentially be used as a prognostic tool to support therapy decisions in patients with prostate cancer.

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Original article Langsenlehner, T. *et al.* Evaluation of the platelet-to-lymphocyte ratio as a prognostic indicator in a European cohort of patients with prostate cancer treated with radiotherapy. *Urol. Oncol.* doi:10.1016/j.urolonc.2015.02.002