Lymphovascular invasion (Recommended)

Reason/Evidentiary Support

Lymphovascular invasion (LVI) is defined as the unequivocal presence of tumour cells within endothelial-lined spaces with no or only thin underlying muscular walls.^{1,2} Lymphatic and venous invasion should be assessed together due to the difficulties in distinguishing between the two by routine light microscopy and it is important that artefacts, such as retraction or mechanical displacement of tumour cells into vessels, are excluded. Immunohistochemistry for endothelial markers, e.g. CD31, CD34 or D2-40, may aid in the assessment of equivocal cases but is not recommended for routine use at present.

LVI has been reported to be associated with decreased time to biochemical progression, distant metastases and overall survival after radical prostatectomy.¹⁻⁶ Multivariate analysis, controlling for other pathological variables known to affect clinical outcome, showed that LVI is an independent predictor of disease recurrence in some studies.^{1,2,4,6,7} However, the independent prognostic value of LVI is uncertain as definitions of LVI have varied between studies and most included a substantial number of patients with lymph node metastases or seminal vesicle invasion, failing to stratify patients into clinical meaningful categories. Further well designed studies with standardised definitions are necessary to confirm the independent prognostic significance of LVI.

References

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