Prognostic significance of patterns of seminal vesicle invasion in prostate cancer.

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Abstract
AIMS: We aimed to evaluate the prognostic significance of histopathological patterns of seminal vesicle invasion (SVI) after radical prostatectomy.

METHODS AND RESULTS: Seminal vesicles of 1050 radical prostatectomy specimens from the Karolinska Hospital, from 1998 to 2005, were reviewed. Extraprostatic SVI was found in 60 cases (5.7%). Associations between histopathological characteristics of SVI and biochemical recurrence were analysed. The SVI component of the tumour always had a Gleason score of 7 or higher. Invasion of seminal vesicle (SV) mucosa was seen in 68.3%, and was always accompanied by muscle wall invasion. SVI was associated with biochemical recurrence [HR 1.7 (95% CI 1.1-2.6), P = 0.015], while intraprostatic SVI was not. SV mucosal invasion was associated with adverse outcome [HR 4.2 (95% CI 1.2-14.2), P = 0.021], while only 15.8% of tumours with muscle wall invasion alone recurred. Other features of SVI such as the Gleason score of the SV component, laterality, invasion route, measures of extent and local margin status in the SV did not predict outcome.

CONCLUSIONS: The prognosis of patients with SVI is not uniformly poor. Invasion of the SV mucosa portends a higher risk of recurrence than invasion of the muscle wall alone. There is no evidence that other histopathological features of SVI need to be reported.

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