
Predicting Competing Mortality in Patients Undergoing Radical Prostatectomy Aged 70 yr or Older.


Abstract

Estimating the risk of competing mortality is of importance in tailoring optimal individual management strategies in patients with early prostate cancer. Using proportional hazard models for competing risks, we determined which parameters predict competing mortality in patients selected for radical prostatectomy aged 70 yr or older and compared the prognostic impact of individual parameters with that of their younger counterparts. Three common diseases (diabetes mellitus, chronic lung disease, and other cancer) that predicted competing mortality in younger men were not predictors of competing mortality in men selected for radical prostatectomy aged 70 yr or older (hazard ratio [HR]:<1). Besides age (HR/yr: 1.08, p=0.0255), peripheral vascular disease (HR: 2.33, p=0.0195), cerebrovascular disease (HR: 2.23, p=0.0242), American Society of Anesthesiologists physical status class 3 (HR: 2.19, p<0.0001), current smoking (HR: 2.18, p=0.0098), and lower or unknown level of education (HR: 2.07, p=0.0002) were independent predictors of competing mortality in patients aged 70 yr or older. Combining these five conditions in a score might provide a superior comorbidity measure in this particular population.

PATIENT SUMMARY: Stricter selection may diminish the prognostic significance of several common diseases in men selected for radical prostatectomy aged 70 yr or older whereas other parameters (peripheral vascular disease, cerebrovascular disease, American Society of Anesthesiologists physical status class 3, current smoking, and level of education) sustained their meaningfulness and should be taken into consideration when the risk of competing mortality is estimated.

KEYWORDS: Age; Comorbidity; Competing risk analysis; Mortality; Prostate cancer; Radical prostatectomy; Selection; Urologic neoplasms

PMID: 27793476 DOI: 10.1016/j.eururo.2016.10.022

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