Documents

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Comorbidity in head and neck cancer: Is it associated with therapeutic delay, post-treatment mortality and survival in a population-based study?

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Abstract
Objectives: This study aims to investigate the relationship between comorbidities and therapeutic delay, post-treatment mortality, overall and relative survival in patients diagnosed with squamous cell carcinoma of the head and neck (HNSCC). Patients and Methods: 9245 patients with a single HNSCC diagnosed between 2009 and 2014 were identified in the Belgian Cancer Registry. The Charlson Comorbidity Index (CCI) was calculated for 8812 patients (95.3%), distinguishing patients having none (0), mild (1–2), moderate (3–4) or severe comorbidity (>4). The relationship between CCI and therapeutic delay was evaluated using the Spearman correlation. Post-treatment mortality was modelled with logistic regression, using death within 30 days as the event. The association between comorbidity and survival was assessed using Cox proportional hazard models. Results: Among 8812 patients with a known CCI, 39.2% had at least one comorbidity. Therapeutic delay increased from 31 to 36 days when the CCI worsened from 0 to 4 (rho = 0.087). After case-mix adjustment, higher baseline comorbidity was associated with increased post-surgery mortality (mild, OR 3.52 [95% CI 1.91–6.49]; severe, OR 18.71 [95% CI 6.85–51.12]) and post-radiotherapy mortality (mild, OR 2.23 [95% CI 1.56–3.19]; severe, OR 9.33 [95% CI 4.83–18.01]) and with reduced overall survival (mild, HR 1.39, [95% CI 1.31–1.48]; severe, HR 2.41 [95% CI 2.00–2.90]). That was also the case for relative survival in unadjusted analyses (mild, EHR 1.77 [95% CI 1.64–1.92]; severe, EHR = 4.15 [95% CI 3.43–5.02]). Conclusion: Comorbidity is significantly related to therapeutic delay, post-treatment mortality, 5-year overall and relative survival in HNSCC patients. Therapeutic decision support tools should optimally integrate comorbidity. © 2020 Elsevier Ltd

Author Keywords
Charlson comorbidity index; Head and neck cancer; Mortality; Performance status; Population-based study; Survival; Time-to-treatment

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