

PE65 Time to move on: The impending need for a new disease-specific comorbidity index for bladder cancer patients undergoing robot-assisted radical cystectomy

EUR Urol Suppl 2019;18(6):e2642

Lambert E.¹, D'hondt F.¹, Mazzone E.¹, Vollemaere J.¹, Larcher A.², Van Der Jeugt J.¹, Devos G.¹, Uvin P.¹, Goossens M.¹, Poelaert F.¹, De Naeyer G.¹, Schatteman P.¹, Collins J.², Mottrie A.², Dell'oglio P.¹

¹OLV Hospital, Dept. of Urology, Aalst, Belgium, ²ORSI Academy, Dept. of Urology, Aalst, Belgium

Introduction & Objectives: The Charlson Comorbidity Index (CCI) was originally devised towards the end of the 1980's to predict 1-year mortality from chart review for medical patients admitted at a single hospital. Consequently, it is not a disease-specific comorbidity index and some of comorbid conditions included into the CCI might not be applicable to, or are of marginal importance to contemporary bladder cancer (BCa) patients undergoing robot-assisted radical cystectomy (RARC).

Materials & Methods: We relied on 290 T1-T4 non-metastatic BCa patients who underwent RARC at a single tertiary care referral centre between 2003 and 2018. Prospective recording of baseline comorbidities was based on patient interviews carried out by medical doctors before surgery. Patient chart review was retrospectively re-assessed every year after surgery to avoid underestimation of the reported comorbid conditions. We quantified the prevalence of the comorbid diseases used in the CCI (myocardial infarction, congestive heart failure, peripheral vascular disease, cerebrovascular disease, dementia, chronic pulmonary disease, connective tissue disease, peptic ulcer disease, mild liver disease, diabetes, hemiplegia, moderate or severe renal disease, diabetes with end organ damage, any tumor, leukemia, lymphoma, moderate or severe liver disease, metastatic solid tumor, acquired immunodeficiency syndrome). The prevalence of comorbid diseases and BCa manifestations not included in the CCI were also assessed.

Results: Of the 19 comorbid conditions included in the CCI, seven (connective tissue disease, moderate or severe liver disease, dementia, leukemia, lymphoma, metastatic solid tumor and acquired immunodeficiency syndrome) have a prevalence of less than 1%. Mild liver disease (2.1%), hemiplegia (2.4%) and cerebrovascular disease (4.1%) have a prevalence less than 5%. The prevalence of ulcer disease (6.6%), peripheral vascular disease (11%) and moderate or severe renal disease (11.7%) was 5 and 12%. The five most prevalent conditions included in the CCI were myocardial infarction (18.3%), diabetes with or without end organ damage (18%), congestive heart failure (17.2%), any tumor (15.9%) and chronic pulmonary disease (12.4%). The comorbid conditions most prevalent in our cohort and not included in the CCI were hydronephrosis 12 months before surgery (33%), arterial hypertension (26.2%), urological infection 12 months before surgery (26%) and hypercholesterolemia (21%).

Conclusions: Several comorbid conditions included in the original CCI are rare among contemporary patients undergoing RARC. Moreover, several conditions that are not included in the CCI are well represented in this subset of patients. These conditions should be considered in a future disease-specific comorbidity score developed for the assessment of patients with BCa undergoing RARC.