P042 Oncologic results of radical prostatectomy for high-risk prostate cancer and prognostic factors for recurrence and progression-free survival

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Zaghbib S.[1], Chakroun M.[1], Saadi A.[1], Mrad Dali K.[2], Zouari S.[1], Bouzouita A.[1], Ben Rhouma S.[2], Derouiche A.[1], Ben Slama M.R.[1], Nouira Y.[2], Ayed H.[1], Chebil M.[1]

[1]Charles Nicolle Hospital, Dept. of Urology, Tunis, Tunisia, [2]La Rabta Hospital, Dept. of Urology, Tunis, Tunisia

Introduction & Objectives: The standard treatment for high-risk prostate cancer (PCa) is external radiotherapy combined with long-term androgen deprivation therapy. However, radical prostatectomy (RP) is currently recommended as part of multimodal treatment. The objective of this study is to evaluate the oncologic outcomes of radical prostatectomy for high-risk prostate cancer.

Materials & Methods: A retrospective multicenter study that includes patients who had RP for high-risk PCa between 2008 and 2018. The definition of high risk was PSA >20, and/or Gleason score ≥8 and/or pT3 on surgical specimen. Preoperative data (patient characteristics, PSA, preoperative Gleason score, MRI), surgical specimen examination and its concordance with preoperative data were studied as well as recurrence and progression-free survival and factors influencing survival by Cox regression.

Results: The mean age of patients was 64.14+/-5.72 years. The mean preoperative PSA was 14.55 ng/ml +/- 8.89 and was >20 ng/ml in 19.3% of cases. Preoperative digital rectal examination and MRI showed T3 disease in 36.2% of cases versus 79% pT3 on the surgical specimen (17% pT3b). The Gleason score was >7 in 25.5% of cases on prostate biopsy versus 32.5% on surgical specimen. MRI underestimated capsular involvement (Positive Predictive Value = 92% ; Negative Predictive Value = 18%) and overestimated seminal vesicle involvement (Positive Predictive Value = 45% ; Negative Predictive Value = 83%). Extended lymph node dissection was performed in 91.2% of cases. Surgical margins were positive in 61.4% of cases(26.3% <1 mm; 35.1% >1 mm). The PSA level was detectable after surgery in 24.6% of cases. Adjuvant treatment was done by radiotherapy in 24.5% of cases and by radiotherapy and androgen deprivation therapy in 23.2% of cases. With an average follow-up of 53.7 months, 22.8% of patients had a biochemical recurrence and 5.3% had a clinical recurrence (100% distant metastasis) and salvage radiotherapy was done for 30% of recurrences. Recurrence and progression-free survival was 68% at 5 years. Recurrence and progression-free survival was significantly related to a high Gleason score (exp B= 2.11; p=0.08) and was not related to PSA (exp B= 2.7; p=0.15), tumor stage (exp B= 1.55; p=0.325) and positive margins (exp B= 1.18; p=0.65).

Conclusions: We conclude that surgery remains the best staging option for high-risk PCa and that it is a viable option, especially since the tumor stage and positive margins did not influence recurrence and progression-free survival in our study, as part of a multimodal treatment regimen. However, undifferentiated cancers significantly influenced recurrence and progression-free survival. Comparative studies with non-surgical treatment, on a large scale, are essential for this type of cancer.