

SC223 Higher testosterone serum levels are associated with a higher childbirth in patients treated for testicular cancer

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Introduction: Aim of our study was to assess fertility of patients treated with orchifuniclectomy for testicular cancer.

Materials and methods: A retrospective analysis of patients undergoing orchifuniclectomy for testicular cancer was conducted in three centers from 2000 to 2019. Demographic, clinical and histological characteristics of the patients were recorded. Adjuvant treatments were recorded. Number of pregnancies, number of children, cryopreservation, in vitro fertilization were recorded as well as post-operative testosterone serum level. Risk factors for pregnancy were evaluated. Univariate and multivariate analysis were performed to evaluate factors influencing pregnancy rates.

Results: Overall 271 patients were enrolled with a median age of 31 (25/35) years and a median BMI of 25 (23/28 Kg/m²). Overall 187 of 271 (69%) presented a seminoma, 61 of 271 (22%) presented advanced stage ($\geq pT2$), 4 of 271 (1%) presented metastasis, 13 of 271 (5%) underwent lymphadenectomy. 112 of 271 (41%) underwent adjuvant chemotherapy and 35 of 271 (13%) underwent adjuvant radiotherapy. 71 of 271 (26%) patients had at least one child, 165 of 271 (60%) performed cryopreservation, 9 of 271 (3%) performed fertilization in vitro and out of them 8 of 9 (89%) had at least one child. Patients with at least one child presented higher levels of testosterone and performed more often in vitro fertilization. On multivariate analysis testosterone levels (OR = 1,94; 95%CI: 1,35–2,80, p = 0,001) were associated with a higher probability of having a child after testicular cancer surgery.

Conclusions: In our experience, patients undergoing testicular cancer surgery have 25% probability of having a child. Higher testosterone levels increase the probability of having a child in patients treated for testicular cancer.

SC224 Dynamic sentinel node biopsy versus observation in clinical N0 penile squamous cell carcinoma: a large tertiary national referral center experience

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Introduction: Data regarding comparison between dynamic sentinel node biopsy (DSNB) and observation in clinical N0 penile squamous cell carcinoma (peSCC) are lacking. To test for potential relapse-free survival and cancer specific free survival (CSS) advantages of DSNB vs observation in cN0 peSCC.

Materials and methods: Within our institutional database (1980–2017), we identified 276 clinical N0 patients with histologically confirmed peSCC who underwent either observation or DSNB. Kaplan-Meier plots depicted relapse-free survival and CSS rates according to DSNB or observation. Multivariable Cox regression models (MCRMs) tested the effect of DSNB or observation on relapse free survival and CSS rates. Analyses were repeated after inverse probability after treatment weighting (IPTW) adjustment.

Results: Overall, 162 and 114 patients underwent DSNB vs observation, respectively. DSNB patients were older 62 vs 57 years (p = 0.007), harbored more frequently higher tumor grades [G2 79 (48.8%) vs 24 (21.1%), G3 34 (21.0%) vs 4 (3.5%) (p < 0.001)] and higher tumor stages, [T1 48 (29.6%) vs 91 (79.8%), T2 99 (61.1%) vs 20 (17.5%), T3 11 (9.3%) vs

3 (2.7%) (p < 0.001)]. After stratification according to DSNB or not, 5-year relapse-free survival rates were respectively 86% vs 81% before and 91% vs 77% after IPTW. Conversely, 5-year CSS rates were 88 vs 87% before and 90 vs 74% after IPTW for DSNB vs observation. In MCRMs, DSNB achieved independent predictor status for higher relapse-free survival (HR 0.4, CI 0.2–0.85, p-value 0.02) and CSS (HR 0.29, CI 0.11–0.77; p-value 0.01) rates. Similarly, DSNB achieved independent predictor status for lower relapse-free survival (HR 0.27, CI 0.13–0.58, p-value < 0.001) and CSS (HR 0.31, CI 0.15–0.65; p-value 0.002) rates after IPTW adjustment.

Conclusions: Patients referred to observation were highly selected. However, according to our results DSNB allows to have lower relapse rates and higher CSS in cN0 penile SCC. Results were strongly corroborated after propensity score adjustments.

SC225 Determinants of inguinal lymph node involvement and predicted rates of inguinal nodal disease in clinical N0 penile squamous cell carcinoma patients

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Introduction: No contemporary study analyzed the effect of tumor grade, tumor stage and lymphovascular invasion (LVI) on inguinal lymph node involvement (inguinal LNI) in clinical N0 penile squamous cell carcinoma (cN0 peSCC). To analyze inguinal LNI rates according to tumor grade, tumor stage and LVI and to predict nodal disease rates according to tumor and patients characteristics.

Materials and methods: Within our institutional database (1980–2017), we identified 274 clinical N0 patients with histologically confirmed peSCC who underwent either observation or dynamic sentinel node biopsy. Univariable and multivariable logistic regression models (MLRMs) tested for independent predictors of nodal disease. Adjusted LNI rates according to tumor stage, tumor grade and LVI were generated by MLRMs.

Results: Of 274 cN0 peSCC patients, who underwent either observation or dynamic sentinel node biopsy, 27.1% harbored LNI. In MLRMs, tumor grade higher than G1 (HR 2.57, CI 1.24–5.33; p = 0.01), tumor stage higher than T1 (HR 3.7, CI 1.73–7.96; p < 0.001) and LVI (HR 3.12, CI 1.65–5.88; p < 0.001) achieved independent predictor status for higher inguinal LNI. Predicted inguinal LNI rates according to tumor stage were, respectively, 15.3, 26.6, and 31.3% for, T1, T2 and T3 cN0 peSCC. Conversely, predicted LNI rates according to tumor grade were, 12.9, 29.1, and 28.4% for, respectively, G1, G2 and G3 cN0 peSCC. Finally, inguinal LNI rates for patient who had or not LVI were respectively 38.7% and 16.9%.

Conclusions: Tumor grade, tumor stage and LVI in cN0 peSCC are the most important determinants of inguinal LNI. Invasive nodal staging, specifically for patients with LVI should always be performed.

SC226 Dynamic sentinel node biopsy for clinical N0 squamous cell penile carcinoma: a large, contemporary analysis

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Introduction: To describe contemporary characteristics and outcomes of a large cohorts of penile squamous cell carcinoma (peSCC) patients