Penile Sparing Surgery for Penile Cancer: Does it Affect Survival?

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Purpose: Management of squamous cell carcinoma of the penis changed in recent decades in favor of penile sparing surgery. We assessed whether penile sparing therapies were increasingly applied in our penile squamous cell carcinoma cohort with time and whether penile sparing affected 5-year cancer specific survival.

Materials and Methods: We reviewed the records of 1,000 patients treated between 1956 and 2012, of whom 859 with invasive tumors were eligible for analysis. Tumors were staged according to the 2009 TNM classification. Binary logistic regression was used to assess penile preservation vs amputation with time. Cancer specific survival was analyzed using the Kaplan-Meier method and multivariable Cox proportional hazards model. Competing risk analysis was done for local recurrence.

Results: With time significantly fewer penile amputations were performed. The 5-year cumulative incidence of local recurrence as the first event after penile preservation was 27% (95% CI 23-32) while after (partial) penectomy it was 3.8% (95% CI 2.3-6.2, Gray test p <0.0001). Patients treated with penile preservation showed no significant difference in survival compared to patients treated with (partial) amputation after adjusting for relevant covariables. Factors associated with cancer specific survival were pathological T stage, pathological N stage and lymphovascular invasion on multivariable analysis. In the penile preservation group local recurrence as a time dependent variable in a Cox model was not associated with cancer specific survival (HR 0.52, 95% CI 0.21-1.24, p =0.13).

Conclusions: Significantly more penile preservation therapies were performed in more recent years. Although patients treated with penile preservation experienced more local recurrences, 5-year cancer specific survival was not jeopardized.
Purpose

The purpose of this research is to determine the survival rate of penile cancer treated by the method of Penile preservation compared to amputation, which is a topic of interest. If this method can be used, it will help in terms of function and the mental aspect of patients.

Materials and Methods

Due to being a case-control study, this study has limitations in controlling various factors, including the collection of some data. However, the considerable number of cases makes the data more reliable.

Results

The factors affecting the survival rate of penile cancer include staging of the tumor and staging of the lymph nodes, and the invasion of the bladder and blood vessels. Factors not affecting survival rate include treatment methods, such as Penile preservation, Partial amputation, margin.

Conclusions

For the Partial amputation method, we can see that there is no difference in survival rate at 5 years between the two groups, but it is recommended to perform in the early stages and there is a high chance of recurrence. Therefore, this treatment method may not be feasible, but it can be considered on a case-by-case basis.