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THE RELIABILITY OF SENTINEL NODE BIOPSY IN CLINICALLY NEGATIVE INGUINAL NODES PENILE SQUAMOUS CELL CARCINOMA: THE RESULTS OF A PROSPECTIVE STUDY.

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BACKGROUND-AIM

The appropriate management of inguinal lymph node in patients with penile squamous cell carcinoma (SCC) is extremely important in determining the treatment outcome. In moderate to high-risk patients (\geq pT1G2), approximately 20% of those that are clinically node-negative (cN0) have occult nodal metastases. Therefore, Inguinal lymph-node dissection (ILND) is an unnecessary procedure in 80% of patients and conditioned by significant morbidity. Sentinel node biopsy (SNB) may be performed to assess the nodal status and select patients for ILND in order to limit morbidity. The aim of the study was to assess the false negative rate, negative predictive value (NPV), as well as complications of SNB procedure in pts with penile SCC cN0 stated by physical and ultrasound examination.

METHODS

From 01-2005 to 03-2014 89 pts with penile SCC pT1-3, cN0 (mean age 59 years, range 21-80) underwent to SNB. The lymphoscintigraphy was performed the day of the surgery after intradermal peritumoral injection of 99mTc- nanocolloid (total activity 20 MBq, total volume 0.4 ml). Static images of the inguinal region with mono-head gamma camera was performed 60 minutes post-injections to identify inguinal sentinel nodes. Blue dye had been injected intradermally around penile tumor or in the penil shaft just before surgery. The inguinal sentinel nodes were intraoperatively detected by gamma probe and blue dye detection and then removed. After surgery we recorded major complications and all patients started a follow up schedule.

RESULTS

In 76 out of 89 patients SNs were removed in both inguinal groin successfully. In 12 pts SNB was performed in one groin only and in 1 patients SN was not bilaterally identified due to absent visualization during lymphoscintigraphy (7/178 groins) or not identification during surgical procedure. The procedure was completed in 164/178 (92.2%) groins. In 11/164 groins (6.7%) we had metastatic sentinel node, which was followed by ILND. After a median follow-up of 11 months (range 2-26 months) 12 out of 153 (7.8%) groins with negative SNB developed inguinal metastases. Overall, we recorded 26/178 affected groin (15%), thus ILND could be spared in 85% of groins (152/178). The false negative rate was 7.3% (12/164) leading to a relatively good NPV of 86% (141/164). We did not find majors complications.

CONCLUSION

SNB is a safe procedure with limited major complications which is able to spare ILND to 85% of our patients with penile SCC clinically negative inguinal nodes with the NVP of 86%. Special attention is mandatory in case of failure of sentinel node identification at lymphoscintigraphy and a follow-up is advise also in case of negative bilateral sentinel node biopsy.