

P004 The value of routine ultrasonography in the follow up of penile cancer patients

Eur Urol Open Sci 2022;45(Suppl 2):S57

Vreeburg M.T.A.¹, Vaessen G.¹, De Vries H-M.², Heeres B.³, Van Dijk - De Haan M.³, Graafland N.¹, Van Der Poel H.G.¹, Brouwer O.R.¹

¹Netherlands Cancer Institute - Antoni van Leeuwenhoek Hospital, Dept. of Urology, Amsterdam, The Netherlands, ²Netherlands Cancer Institute - Antoni van Leeuwenhoek Hospital, dept of Urology, Amsterdam, The Netherlands, ³Netherlands Cancer Institute - Antoni van Leeuwenhoek Hospital, Dept. of Radiology, Amsterdam, The Netherlands

Introduction & Objectives: To assess the value of routine ultrasonography (US) of the groins (next to physical examination) at each follow-up visit in patients treated for penile cancer (PeCa).

Materials & Methods: We retrospectively analyzed the follow up visits including US findings of patients treated for PeCa between 2013 and 2016 at a single high-volume center. Only patients what were clinically node negative (cN0) at presentation were included. cN0 was defined as no palpable or visibly enlarged inguinal lymph nodes (LN) and a negative initial US of the groin (with fine-needle aspiration cytology (FNAC) in case of suspicious nodes). All patients were treated according to the European Association of Urology (EAU) guidelines, and dynamic sentinel node (SN) biopsy was performed when indicated. The follow up schedule was according to EAU guidelines, with physical examination and US of the groins performed at 3-monthly intervals for the first 2 years, then 6 monthly until a total of 5 years after primary treatment. Recurrences were registered as local, regional (inguinal LN) or distant metastases. The primary outcome was the development of inguinal LN recurrences during the follow-up, detected by US + FNAC. In addition, potential histopathological risk factors for the development of LN recurrence were studied.

Results: 213 patients were included. A total of 2731 follow-up ultrasounds of the groins were assessed after primary treatment. The median (IQR) follow up time was 59 (28-90) months. A total of 10 LN recurrences were detected with US guided FNAC in 9 patients (one patient had bilateral LN recurrence). In this group, 44% had a suspect palpable LN during physical examination by the urologist and in 11% of the cases, the suspect LN was found by the patient at self-examination in between follow-up visits. The vast majority (75%) of LN recurrences occurred within the first 2 years of follow-up. The highest pathological (p) T-stage found was pT2 (67% of the patients with LN recurrences). All of the patients that developed a LN recurrence had a moderate to poorly graded primary tumor. Lymphovascular invasion was present in 22.2% of the cN0 patients with a LN recurrence and in 9.9% of the cN0 patients without a LN recurrence (n=204). Perineural invasion was found in 22.2% and 3.4%, respectively.

Conclusions: In PeCa patients that are cN0 after primary treatment and SN biopsy when indicated, the occurrence of inguinal LN recurrence is low. More than half of the recurrences were also palpable or noticed by the patients themselves. Therefore, performing routine US next to physical examination at each follow-up visit does not seem cost-effective, and can be safely be omitted after two years of follow-up. Additional risk factor analyses will be performed to identify which patients may benefit from routine US.