57 Radical ilio-inguinal lymph node dissection for penile cancer – technical alternatives and results

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Introduction & Objectives: Penile cancer is a physically and psychologically devastating disease. It affects young patients, so the treatment has to be both conservative for the primary tumor and radical, especially in patients with nodal metastases. In the cases with bulky inguinal extension, a bilateral radical ilio-inguinal lymph node dissection (LND) is a difficult and challenging salvage procedure. The aim of this paper is to present technical alternatives and the results of this complex intervention.

Materials & Methods: Jan 2013 - Jan 2018 - 318 interventions for penile cancer were performed in our center: glans resurfacings, glansectomies or partial amputations with skin graft on the corporal stump, total amputations, and limited or radical inguinal LND. In this study we focus on 64 patients with palpable or bulky LN that required radical ilio-inguinal LND. 26 of them had undergone neoadjuvant chemotherapy, with partial response in 11 cases, while in the other 15 the disease was stable or progressed. 23 patients were referred to our clinic for inguinal adenopathy after the treatment of the primary tumor in other centers. 10 of them had biopsic or incomplete excisional surgery of the LN that triggered a rapid and aggressive local evolution. The primary histology was $pT_{1-4}G_3$ squamous cell carcinoma. The radical ilio-inguinal dissection was performed using a standard technique in 48 pts (2 inguinal incisions for the inguino-femoral LN and a midline pubo-umbilical incision for the ilio-obturatory LN), or a modified technique in 16 pts, consisting in only the bilateral inguinal incisions for all the lymphatic groups. The ilio-obturatory region was addressed through the abdominal wall, superior to the inguinal canal: after the ligation of the recurrent iliac vessels, the inguinal canal was lifted and the LND was performed in continuity from the femoral to the external iliac vessels and obturatory fossa, completely removing the local lymphatic tissue thus minimizing recurrence. In 10 cases a lateral resection and reconstruction of the femoral vein was necessary.

Results: Primary wound healing was difficult in 24 cases, with skin necrosis that imposed secondary sutures. 42 pts developed inguino-femoral and scrotal edema. After a follow-up of 15 to 75 months (median 38 months) oncologic healing was obtained in 27 cases (42%), 37 had recurrence, and underwent chemo and radiotherapy, with poor results. Survival was higher in the modified (only bilateral inguinal incision) group – 9 pts (56%), vs 18 pts (37.5%) in the standard technique group.

Conclusions: Radical ilio-inguinal LND for bulky disease is a challenging surgery. Although the prognostic is poor, 42% of the patients can be cured through a multimodal approach so should not be abandoned. The technical modification for using only the bilateral inguinal incisions provides continuity for the ilio-inguinal LND thus achieving superior accuracy and better prognosis.