SIZE OF THE SENTINEL NODE METASTASIS AND THE RISK OF NON-SENTINEL NODE METASTASIS IN CERVICAL CANCER

Glauco Baiocchi1*, Henrique Mantoan1, Carlos Chaves Faloppa1, Levon Badiglian-Filho1, Lillian Yuri Kumagai1
Louise de Brot2, Alexandre Andre B. A. Costa3
1Department of Gynecologic Oncology; 2Department of Pathology, 3Department of Medical Oncology, AC Camargo Cancer Center

CONCLUSIONS

Macrometastasis (>2mm) of sentinel lymph node (SLN) in cervical cancer was not related to a higher risk of N-SLN metastasis compared to SLN metastasis of ≤2mm.

INTRODUCTION

The standard procedure early-stage cervical cancer is still radical hysterectomy with pelvic lymph node dissection. However, as the entire lymphatic basin is resected, it is associated with great morbidity, such as vascular injury and increased blood loss, increased surgery length time, nerve injury, lymphocele, deep venous thromboembolism, and lately lower limb lymphedema. On the other hand, the prevalence of LN metastasis in surgically staged cervical cancer is relatively low, and estimated to be 15% or less.

Our aim was to correlate the size of metastatic sentinel node (SLN) with the risk of non-sentinel node (N-SLN) metastasis in cervical cancer.

METHODS

The study included 68 patients who met the FIGO staging criteria from IA2 to IB2, treated at AC Camargo Cancer Center from May 2014 to March 2017. The patients underwent SLN mapping using patent blue dye. Following the SLN procedure, a systematic bilateral pelvic lymphadenectomy was performed. The SLNs were examined by immunohistochemistry when the hematoxylin-eosin was negative.

RESULTS

The median age was 42 years (range, 25-76). Median SLN count was 2 (range, 1-8) and median total lymph node (LN) count 24 (range, 6-81). Bilateral pelvic detection was found in 41 (60.3%) cases. We found metastatic LN in 11/56 (19.6%) of patients. Of the 97 hemi-pelvises mapped, SLN was able to predict LN involvement in 96 (98.9%).

Two patients had bilateral positive LNS. A total of 12 hemi-pelvises had LN metastasis, and in 11 the SLN was involved, resulting in a sensitivity of 91.7%, NPV of 98.8%. In 3 (6.4%) cases the SLN was positive only after immunohistochemistry – 6 macrometastasis, 2 micrometastasis and 1 ITC.

The median positive SLN was 1 (range, 1-3) – 1 patient had 2 positive SLN and another had 3 positive SLN. Of 9 patients with positive SLN, 4 (66.6%) also had positive N-SLN. Of 6 patients with macrometastasis, 2 (33.3%) had positive N-SLN (1 contralateral positive N-SLN) – 1/7 (14.2%) hemipelvises. Of 3 patients with metastasis ≤2mm, 2 (66.6%) had positive N-SLN – 1/4 (25%) hemipelvises.

Figures 1 and 2. Microphotography showing a 0.55mm micrometastasis found only after immunohistochemistry