DIFFERENT TECHNIQUES FOR SENTINEL LYMPH NODE DETECTION IN EARLY CERVICAL CANCER: ONE-CENTER EXPERIENCE

A. Glickman¹, B. Gil-Ibáñez¹, P. Paredes², P. Fusté¹, B. Diaz-Feijoo¹, J. Pahisa¹, M. Del Pino¹, N. Carreras¹, N. Agustí¹, E. Mension¹, A. Torné¹

¹Hospital Clínic i Provincial de Barcelona, Gynaecology Oncology Unit, Barcelona, Spain

²Hospital Clínic i Provincial de Barcelona, Nuclear Medicine Department, Barcelona, Spain

INTRODUCTION

In early-stage cervical cancer, nodal involvement remains the most important prognostic factor. Imaging evaluation is not sensitive enough to replace histology. Achieving high detection rates is a prerequisite to introduce sentinel lymph node biopsy (SLNB). The aim of this study was to evaluate the evolution of SLNB detection techniques in women with early-stage cervical cancer treated in our institution.

METHODOLOGY

From 02/2001 until 01/2019, patients with FIGO 2009 stages IA1-IB1/IIA1 cervical carcinoma underwent SLNB. Those treated until 01/2010 endured SLNB followed by pelvic bilateral lymphadenectomy, thereafter only SLNB was performed. When SLNs were detected unilaterally or not detected, lymphadenectomy of the failed mapped side was performed. SLNB was achieved by laparoscopy after intracervical injection: first with blue dye (BD) plus radiocolloid (Tc) and, since 2014, with indocyanine green (ICG) also. SLN identification was performed with lymphoscintigraphy and SPECT/CT, facilitated by a laparoscopic gamma-probe and a fluorescence camera. Detection rate was calculated as the number of procedures in which at least one SLN was identified intraoperatively, divided by the total number of procedures undertaken.

RESULTS

From 164 patients treated, 129 underwent SLNB with BD+Tc and 35 with BD+Tc+ICG. No differences regarding age at diagnosis, size of the tumor ($\leq 2\text{cm}$ vs $> 2\text{cm}$), FIGO stage, histologic subtype and surgical radicality were seen between both groups. In the first group, at least one SLN was identified in 123 cases, for an overall detection rate of 95.4%. The rate of bilateral detection was 61.2%. For the triple-technique group we detected SLNs in 35 cases, prompting a detection rate of 100%. SLNs were bilaterally detected in 34 patients (97.1%).

Blue dye sentinel node detection in external iliac artery and obturator fossa

SPECT/CT for sentinel node detection with Tc following iliac vessels

ICG sentinel node detection

CONCLUSION

Both implemented techniques for SLNB in early-stage cervical cancer show a high detection rate. Nevertheless, triple technique with BD+Tc+ICG allows bilateral SLN detection in almost all patients.