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Analysis of malignancy rates of percutaneous biopsy in lymph nodes of breast cancer patients

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Objective: This study aimed to analyze the inconclusive rates of fine-needle aspiration cytology (FNA) and core needle biopsy (CORE) performed in suspicious lymph nodes for breast cancer metastasis according to the anatomical location of biopsies and the type of needle used, verifying which technique was preferred. **Methodology:** A retrospective study was conducted by evaluating the database of patients treated in a public hospital in São Paulo, Brazil. Women submitted to ultrasound-guided percutaneous biopsy of lymph nodes from May 2015 to November 2019 were included in the study. The data were analyzed using IBM-SPSS version 27 and Microsoft EXCEL version 2010. **Results:** A total of 499 biopsies were performed, and the mean age of the women was 54.2 years (SD±11.9) in the CORE group and 53.4 years (SD±11.8) in the FNA group (p=0.619). According to the anatomical location, 385 were axillary (77.2%), 62 were supraclavicular (12.4%), 48 were cervical (9.6%), and 4 were infraclavicular (0.8%). Regarding the type of needle, 393 were CORE (78.8%) and 106 were FNA (21.2%). When analyzing the results of the FNA, 38 (35.8%) did not present enough material, 31 (29.2%) were positive, 32 (30.2%) were negative, and 5 (4.8%) showed atypical cells. Among the 393 CORE performed, 255 (64.9%) were positive, 132 (33.6%) were negative, 1 (0.3%) showed atypical cells, and 5 (1.3%) had no representative material. No complications were reported after the procedures. **Conclusion:** CORE was the preferred diagnostic technique in our center, being considered a feasible procedure to evaluate lymph nodes in different sites and with low rates of inconclusive results by insufficient material. In the future, studies evaluating indirect costs may confirm the feasibility of CORE in patients with suspicious lymph nodes in terms of obtaining greater agility and resolute conduct in the public healthcare system.

Keywords: image-guided biopsy; lymphatic metastasis; breast pathology; core needle biopsy.