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PERI-LYMPH NODAL PATHOLOGICAL FIBROSIS AND AXILLARY SURGICAL IMPAIRMENT AFTER 14G PERCUTANEOUS FRAGMENT BIOPSY OF SENTINEL LYMPH NODE DETECTED WITH CONTRAST-ENHANCED ULTRASONOGRAPHY (CEUS) IN EARLY BREAST CANCER PATIENTS

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Objectives: To evaluate peri-lymph nodal pathological fibrosis in axillary surgical specimens of breast cancer patients submitted to 14G percutaneous fragment biopsy (PFB) of axillary sentinel lymph node identified with contrast-enhanced ultrasonography (CEUS). **Methods:** This study was originally designed to assess the performance of CEUS+PFB on the axillary staging of early-stage breast cancer. The selection of participants was interrupted, and the design was reformulated to this descriptive cross-sectional study after unexpected peri-lymph nodal pathological fibrosis reported in axillary surgery specimens. The frequency or means of the main clinical, ultrasonographic, surgical and pathological characteristics were calculated. T-test or Pearson Chi-Square test compared the groups of patients with and without peri-lymph nodal pathological fibrosis. **Results:** Forty-eight patients submitted to CEUS+PFB and axillary surgery were eligible for this study. Axillary surgical specimens showed peri-lymph nodal fibrosis in 9/48 (18.7%) patients. The majority of peri-lymph nodal fibrosis were described as moderate (4/9(44.4%)) or severe (4/9 (44.4%)). There was no significant difference between groups regarding patient age ($p=0.99$), breast tumor size ($p=0.60$), rate of lymph-node metastasis ($p=0.83$), use of aromatase inhibitor ($p=0.43$), number of intradermal contrast injection ($p=0.68$), CEUS sentinel lymph identification ($p=0.10$), and CEUS sentinel lymph node mean maximum diameter ($p=0.24$). Axillary surgical impairment or hematoma were only reported in patients with axillary peri-lymph nodal fibrosis ($p<0.001$ and $p=0.003$, respectively). Mean time between CEUS+PFB and axillary surgery was shorter ($p=0.04$) in patients with peri-lymph nodal fibrosis. **Conclusion** Peri-lymph nodal pathological fibrosis may impair the axillary surgical procedure of early breast cancer patients staged with CEUS+PFB.