

Frequency of satellite sentinel lymph node appearance during preoperative breast lymphoscintigraphy

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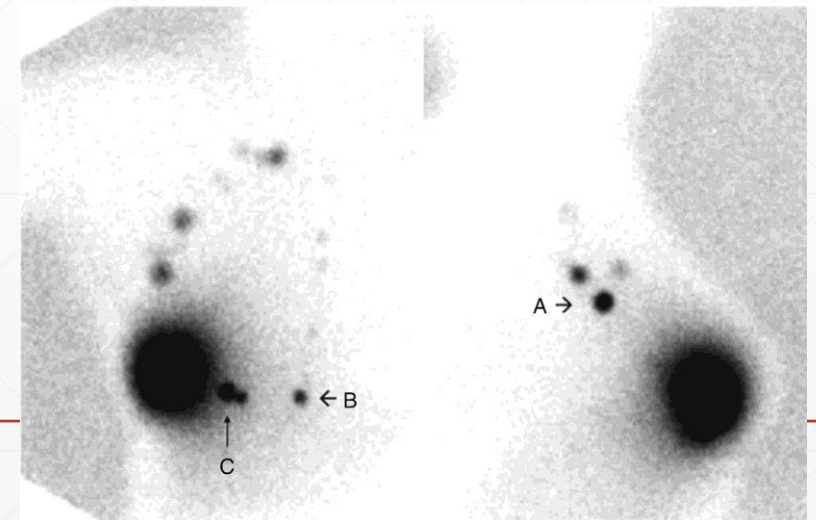
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- **Introduction:** Lymphoscintigraphy nowadays is increasingly used, in order to locate preoperatively the first draining node (i.e. sentinel node), in patients with breast cancer. If the sentinel node is tumor free, then the remainder nodes are obviously without metastases and can be spared.
- **Patients/methods:** In order to identify the sentinel node preoperatively, **163 patients** with breast malignancy were examined scintigraphically. Lymphoscintigraphy was performed by injecting a small amount of ^{99m}Tc nanocolloid in the four quadrants around the nipple, and acquiring dynamic imaging for 20 min, or until the sentinel node is clearly seen. The first visualized node represents the sentinel one.

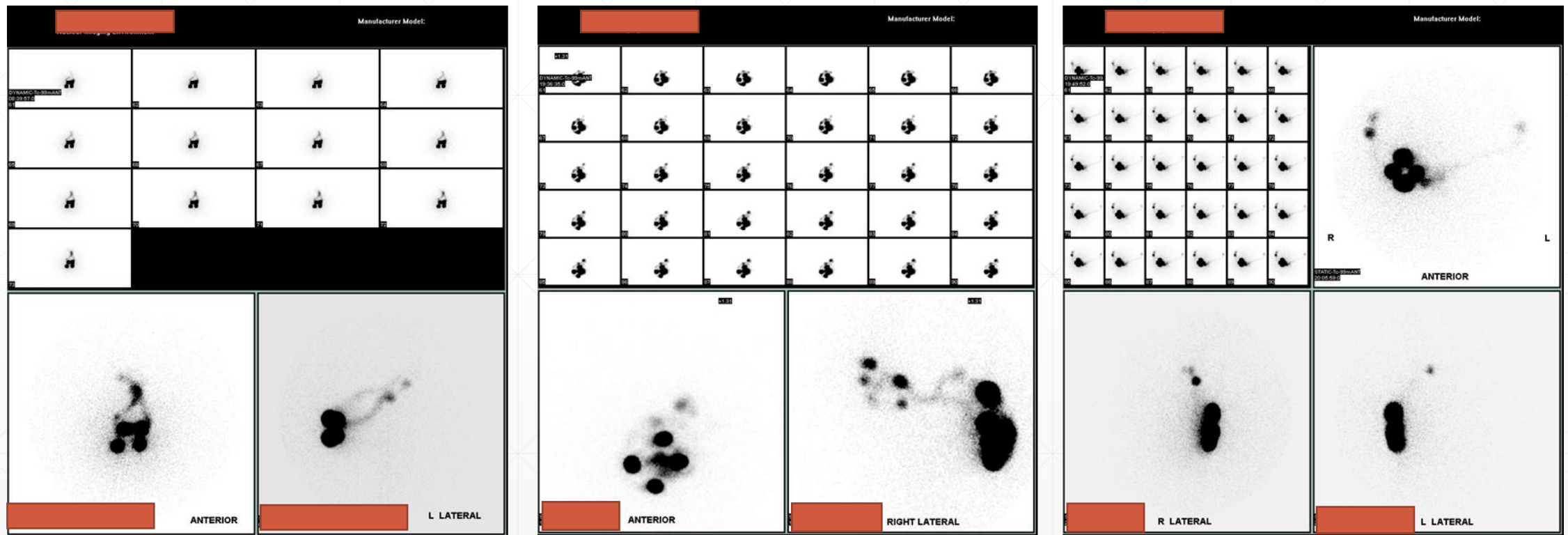


Image courtesy of GE Healthcare



Results:

- In **27 out of 163 (17%)** the radioactive tracer was first depicted a maxillary node and then drained usually superiorly to a second one, representing a satellite node.
- In **6 out of 163 (4%)** two or more satellite nodes were visualized.



In summary, the distinction between the sentinel and satellite (secondary draining nodes) have important clinical implication, representing the number of nodes that require surgical excision.



Conclusion:

- ❖ Dynamic planar imaging is able define the pattern of lymph flow and visualize the sentinel node, as well as the satellite ones.
- ❖ Failure to obtain dynamic or to skip scintigraphic imaging at all, may lead to misdiagnosis of the sentinel node's satellite(s) in a quite considerable number of patients.