

Selective use of Radiological Staging in Stage II + III Breast Cancer

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Background

Breast cancer (Bca) is the most common cancer amongst New Zealand women. Currently there is no routine screening for patients with asymptomatic stage 0 to 2B Bca however there is minimal studies investigating node-positive stage II and III patients. Accurate staging of newly diagnosed Bca may significantly impact on treatment decisions as there is emerging evidence that surgery and radiation do not extend survival in metastatic breast cancer.

Methods

All patients with stage II and III Bca treated at North Shore Hospital from 2013 to 2018 (six year period) were included in our study. Patients must be asymptomatic of distant metastatic disease. Exclusion criteria were: bilateral breast cancer, insitu disease, recurrent cancer, previous history of other malignancy and histology of sarcoma, Phyllodes tumour, lymphoma or inflammatory breast cancer.

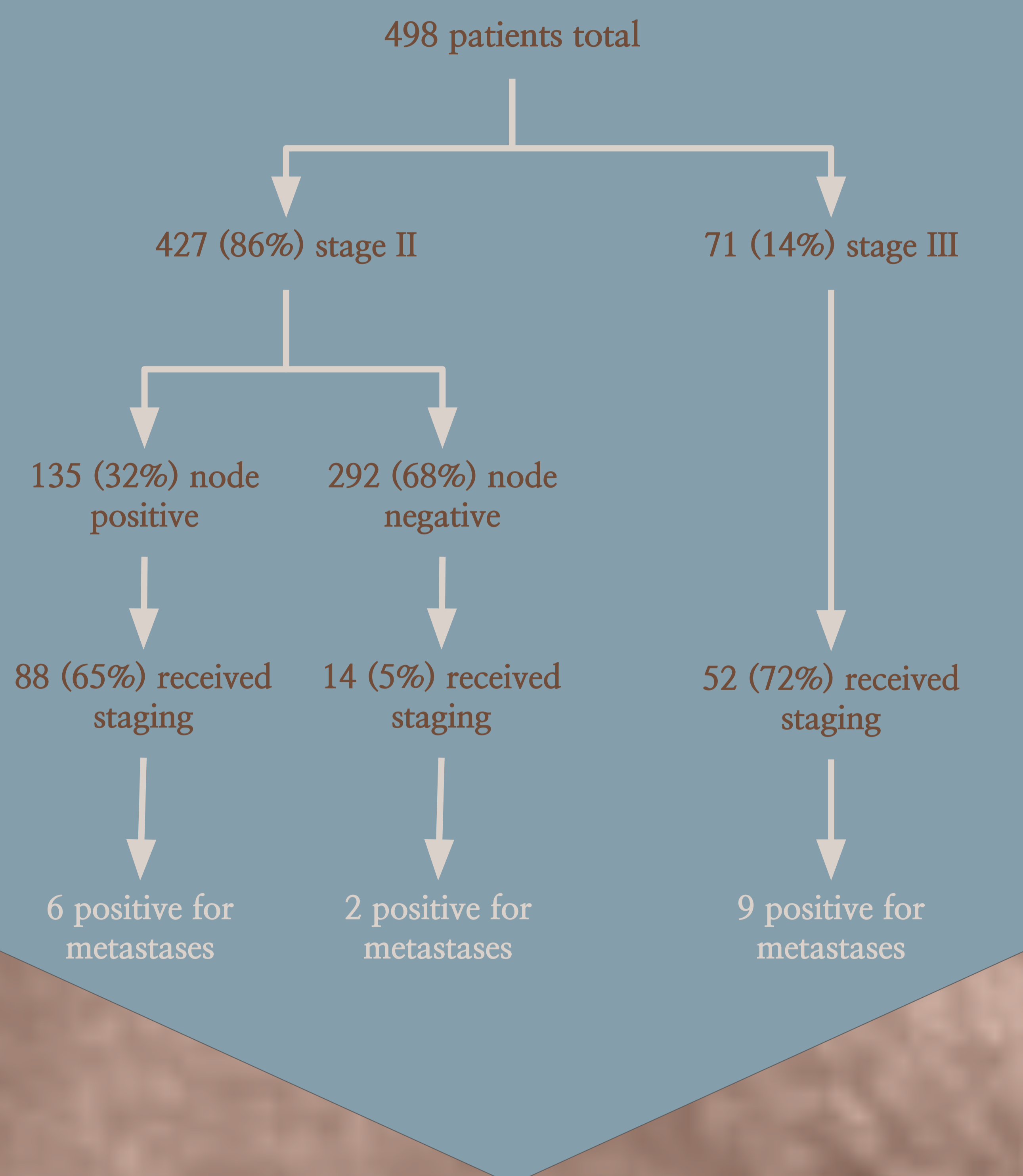
AJCC 8th Edition were used for both anatomical and clinical prognostic staging. Ethics approval was granted by the hospital research centre.

Diagnosis

At our centre, nodal status was confirmed by cytology and/or histology via Fine Needle Aspiration or core biopsy. Those with suspicious nodes but biopsy negative were classified as negative nodal status.

Radiological staging can be of Computed Tomography (CT) of chest to pelvis, bone scintigraphy or Positron Emission Tomography (PET).

Distant metastases were confirmed by histology or radiological progression



Overall, **7.8%** of all asymptomatic anatomical stage II patients and **6.8%** of all node-positive stage II patients who have been staged were positive for metastases.

Our centre has predisposition to scan node-positive patients, accounting for **86%** of staged patients. All staging involved CT staging scan.

Discussion

Our centre has found higher distant metastases rate despite our stricter criteria for node-positive status. Previous studies have shown majority (up to 85%) of patients with metastatic disease have regional lymphadenopathy. There is hypothesis regional lymph node acts as transit.

Disadvantages of staging scans include:

- False positive rate for distant metastases, approx 20.0% with all requiring further imaging. Multiple and additional imaging are costly both in time and resources
- Can inflict unnecessary anxiety on patients and cast doubt in established management plans.

References

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Conclusion

Stage II, node-positive (T1N1, T2N1) are group who may benefit from baseline radiology staging.

Modality of baseline staging is open for further investigation; CT staging seems adequate given most common site for metastases is bone in axial skeleton as well as detection of any solid organ metastases.