Tumour characteristics of patients with CT-detected internal mammary lymph node and sternal metastatic disease from breast cancer

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Background

- Internal mammary lymph node (IMN) metastases have a similar prognostic significance to axillary nodal metastases in breast cancer.
- IMN radiotherapy has a potential to reduce recurrence and improve survival, however there is an increased risk of toxicity.
- It is therefore important to identify patients at higher risk of IMN metastases.

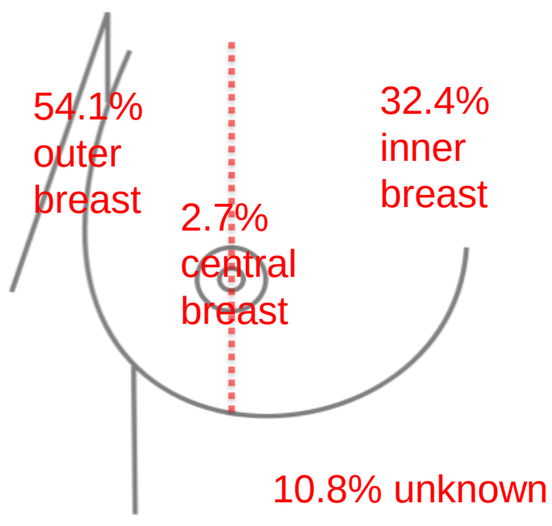
Method

- A retrospective search for all patients with first presentation of metastatic breast cancer from 2012 to 2017, was performed using our local metastatic breast cancer MDT database (n=229).
- Staging CT images were reviewed for IMN and/or sternal soft tissue disease.
- Histology was reviewed and information including location of primary tumour, grade, receptor status and axillary nodal involvement was collected.

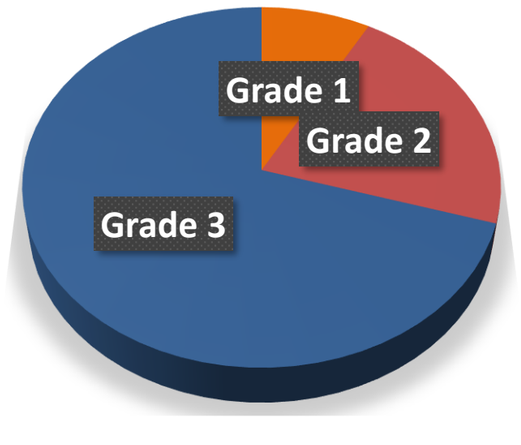
Results

- 47/229 patients (20.7%) had involvement of IMNs/sternal soft tissue, however histology for 10 was not available.
- 37 patients were included in this study.

Location of primary tumour

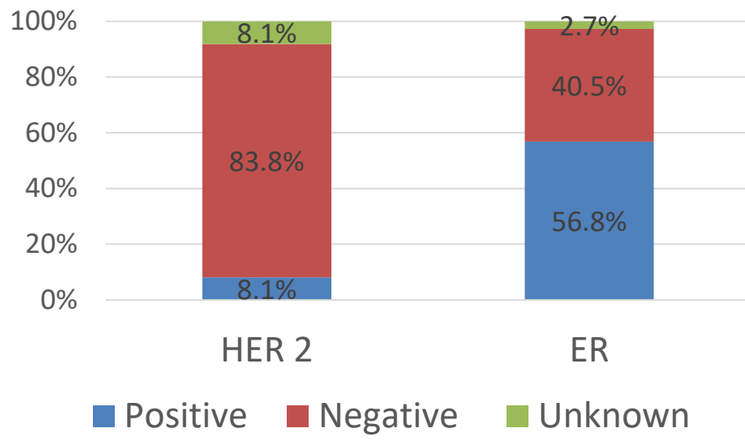


Grade of primary tumour



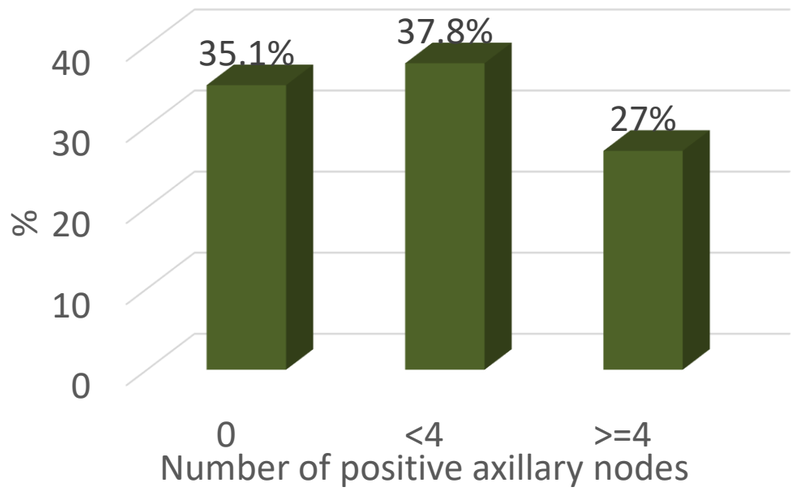
- 8.1% grade 1
- 21.6% grade 2
- 70.3% grade 3

Receptor status of primary tumour

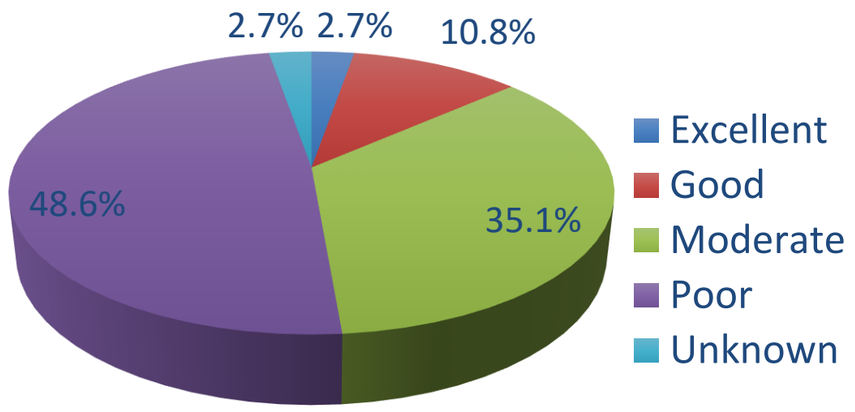


- Majority HER2 negative with no significant difference in ER status.
- 32.4% were triple negative.

Axillary nodal involvement



Nottingham Prognostic Index (NPI)



Conclusion

- Grade 3, HER 2 negative/triple negative disease with high NPI is most commonly associated with IMN/sternal soft tissue metastases.
- It is important to identify these patients so that local radiotherapy can be considered.

References

Chen R, Lin N, Golshan M, Harris J and Bellon J. Internal Mammary Nodes in Breast Cancer: Diagnosis and Implications for Patient Management—A Systematic Review. Journal of Clinical Oncology 2008.;26(30);4981-9.