THE IMPORTANCE OF INTERNAL MAMMARY NODE (IMN) LYMPHADENOPATHY

What is the incidence of Internal Mammary Node (IMN) lymphadenopathy on CT in primary breast cancer patients within one year of a diagnosis?

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Abstract

The significance of IMN in the management of breast cancer is long disputed. Within our series 40% had IMNs present on CT, of which 16% were over 5mm. We suggest that routine imaging of the IMN chain as well as axilla should be considered in the staging of breast cancer.

Introduction

The importance of IMNs in the staging and treatment of breast cancer patients is controversial. Lymphoscintigraphic studies have demonstrated that a significant proportion of breast cancers have primary or partial IMN involvement1-4. However historical studies demonstrated no overall benefit of treating IMNs with either surgery or radiotherapy5-6. Currently with recent advances in treatment, targeted radiotherapy of the IMN chain, is now possible5-6. Thus we sort to establish the frequency of IMNs within our primary breast cancer population.

Results

830 patients were diagnosed with primary breast cancer within our time frame; 150 patients were included in this study. Of these 40% (60) had IMNs present, although the majority were small (<5mm). However, 16% (24) had larger nodes >5mm, present on CT. One patient had a node greater than 10mm identified.

Discussion

The importance of IMNs in the staging and management of primary breast cancer remains in dispute. Of our series 16% of patients had nodes identified that were greater than 5mm in short axis. Our results are similar to two North American studies7,8 in which 3-7.5% of breast cancer patients had IMNs reported on a variety of diagnostic imaging modalities (ultrasound, CT, PET/CT). Of the cases in which fine needle aspirates (FNAs) were performed, 80% were suspicious on PET/CT. They had similar, high levels of pathological confirmation with 72.2% being cytologically proven metastases. This suggests that the nodes between 5-10mm, that we identified, are likely to be clinically significant. A further study3 surgically sampled 36 of 133 IMNs identified as suspicious on PET/CT. They had similar, high levels of pathological confirmation with 72.2% being proven metastases. In their series there was no difference in the SUVs of the metastatic and non-metastatic IMNs.

Conclusion

We have demonstrated that IMNs are present in a substantial number of our primary breast cancer patients. We suggest that routine imaging of the IMN chain as well as axilla should be considered in the staging of breast cancer.

References