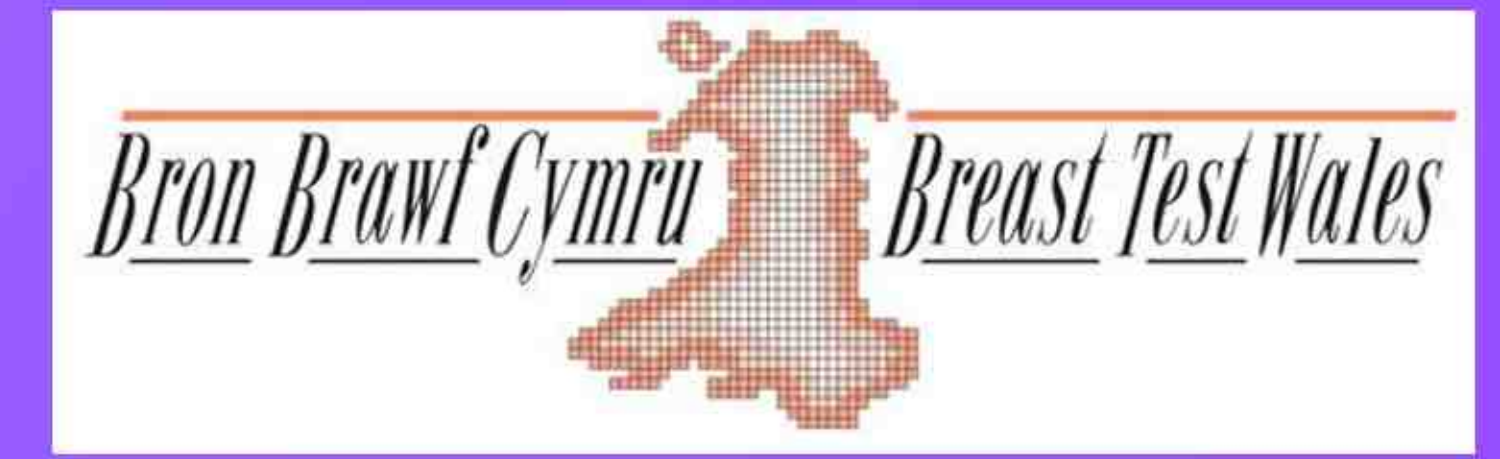


# Stereotactic Biopsy of Ultrasound occult lesions: 2 year review from a single screening centre

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**Background:** Stereotactic core biopsy is commonly used for sampling ultrasound occult lesions, being the mainstay for sampling of microcalcification. Some of the masses / asymmetric densities called back from screening mammography, while persistent on extra mammographic views, are not demonstrated on ultrasound. These then undergo stereotactic sampling.

**Aim:** To review pathology results of ultrasound occult masses and identify features that are predictive of the final pathological outcome.

**Method:** A retrospective review of 2 years of patients undergoing stereotactic biopsy for a mass lesion at our screening centre was undertaken. The records for these patients were reviewed to identify which patients had a normal ultrasound prior to stereotactic biopsy. The size and mammographic characteristics of the mass were compared to the final pathology results.

**Results:** 90 patients underwent stereotactic biopsy over the 2 year period. The age range was from 46-83. 21% of patients had a malignant result at final pathology.

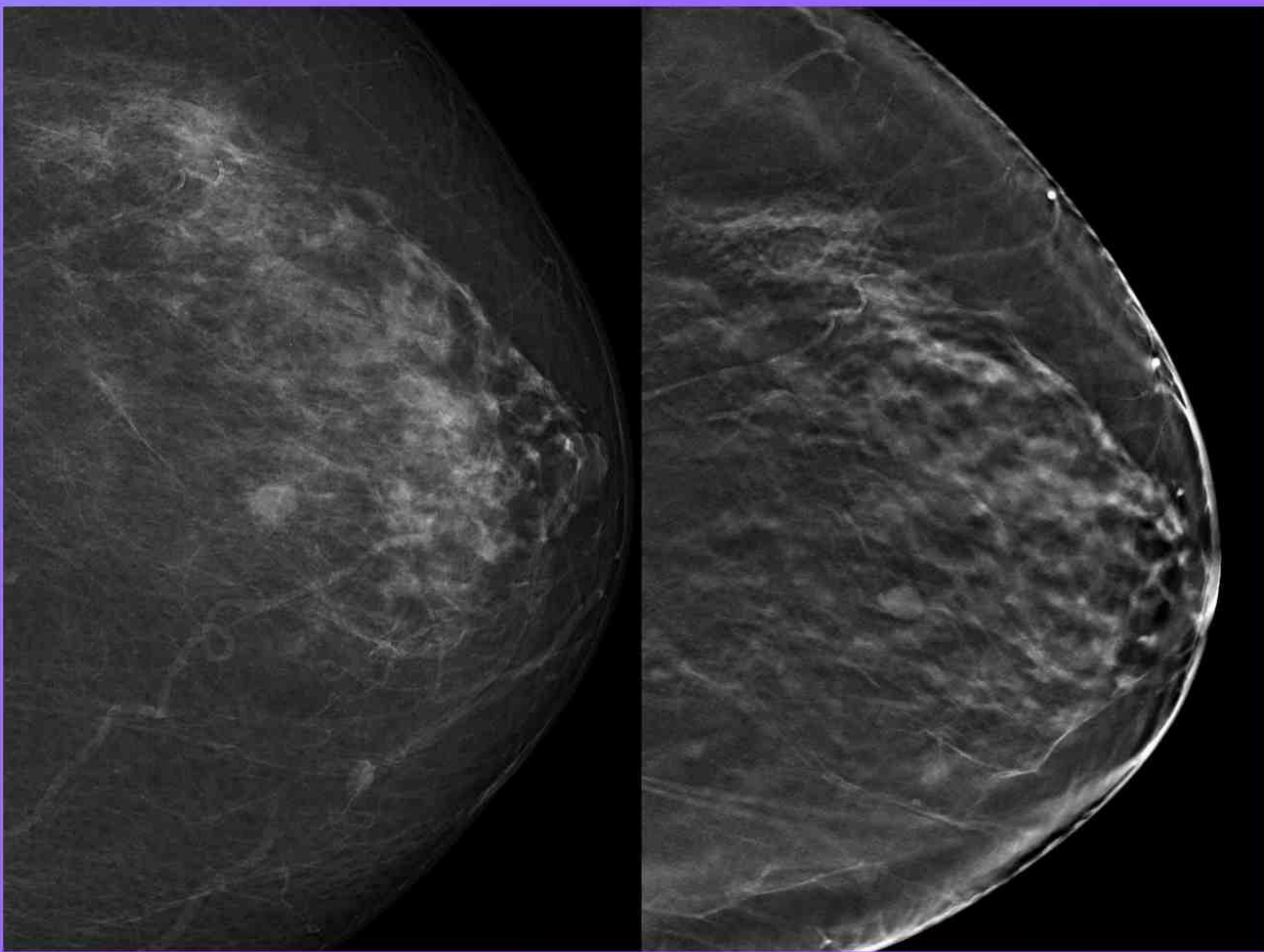


Figure 1: Example of patient with a malignant final diagnosis – 65 years old with new 8mm mass, well defined on tomosynthesis. Final pathology was intracystic papillary carcinoma

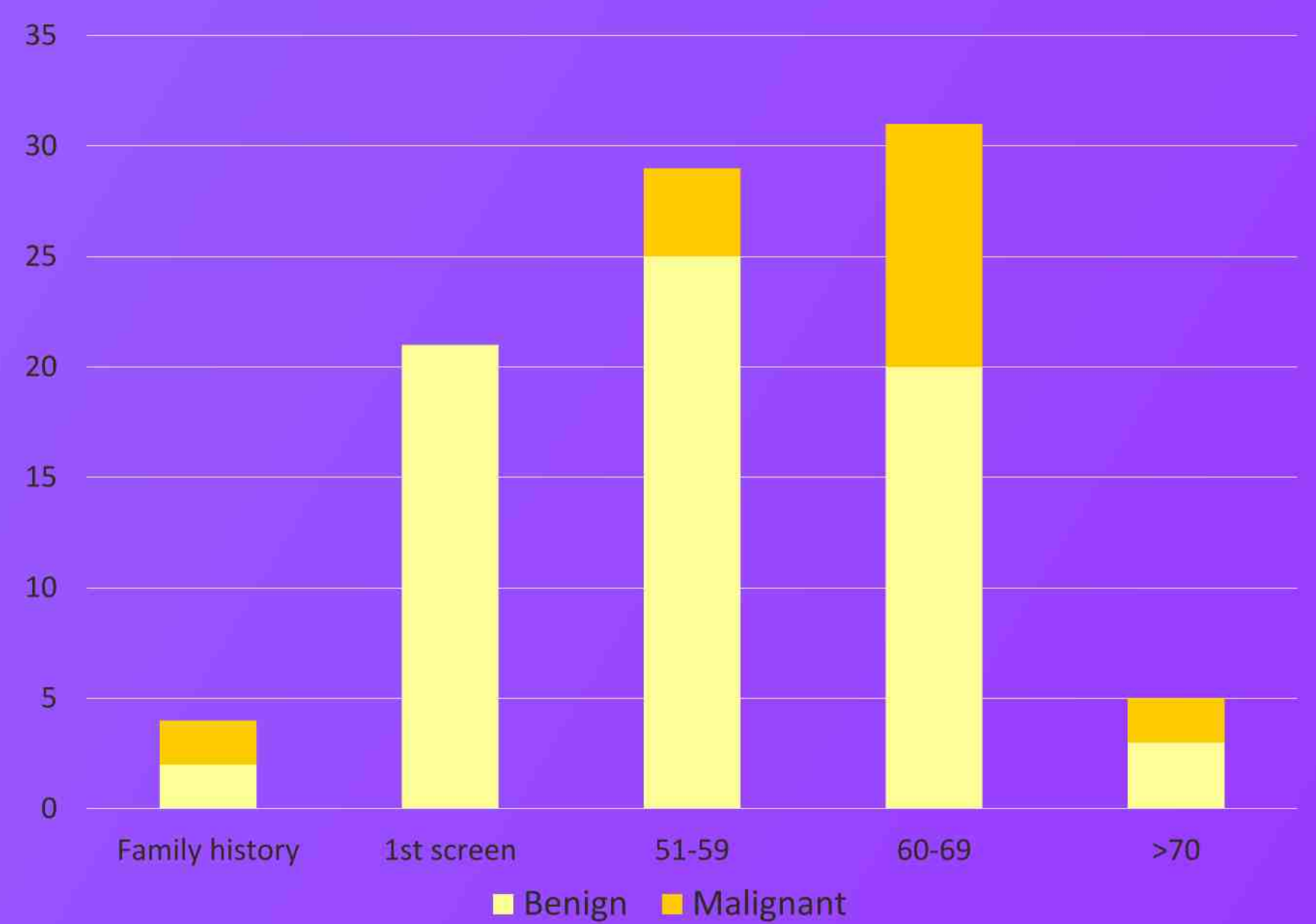


Figure 2: Graph of end pathology diagnosis by patient group

Four patients came from our family history programme, half of which had a final malignant diagnosis. Twenty-one patients were from the prevalent round, all of whom had benign pathology at final histology, 57% having fibroadenomas.

Benign final pathology included 25 patients with cysts, 18 with fibroadenomas and 19 with normal fibrofatty breast tissue, which together accounted for 69% of patients included in our data. The other benign pathology included intramammary lymph nodes, a papilloma without atypia and fat necrosis.

## Well defined masses

57 of the 90 lesions targeted appeared well defined on the additional mammographic films, including both round and lobulated lesions. Only 3 of these lesions had B5 results on final pathology (5%). These included an intracystic papillary carcinoma, high grade ductal carcinoma in situ (DCIS) and mass forming low grade DCIS. One patient was from the family history programme, the other two in their 60's.

Features that appeared to correlate with benign final pathology included the patient age <60, prevalent round screen, the radiological score – all 7 lesions scored as R2 were benign, and size of lesion with all those <5mm in size and those >11mm being benign.

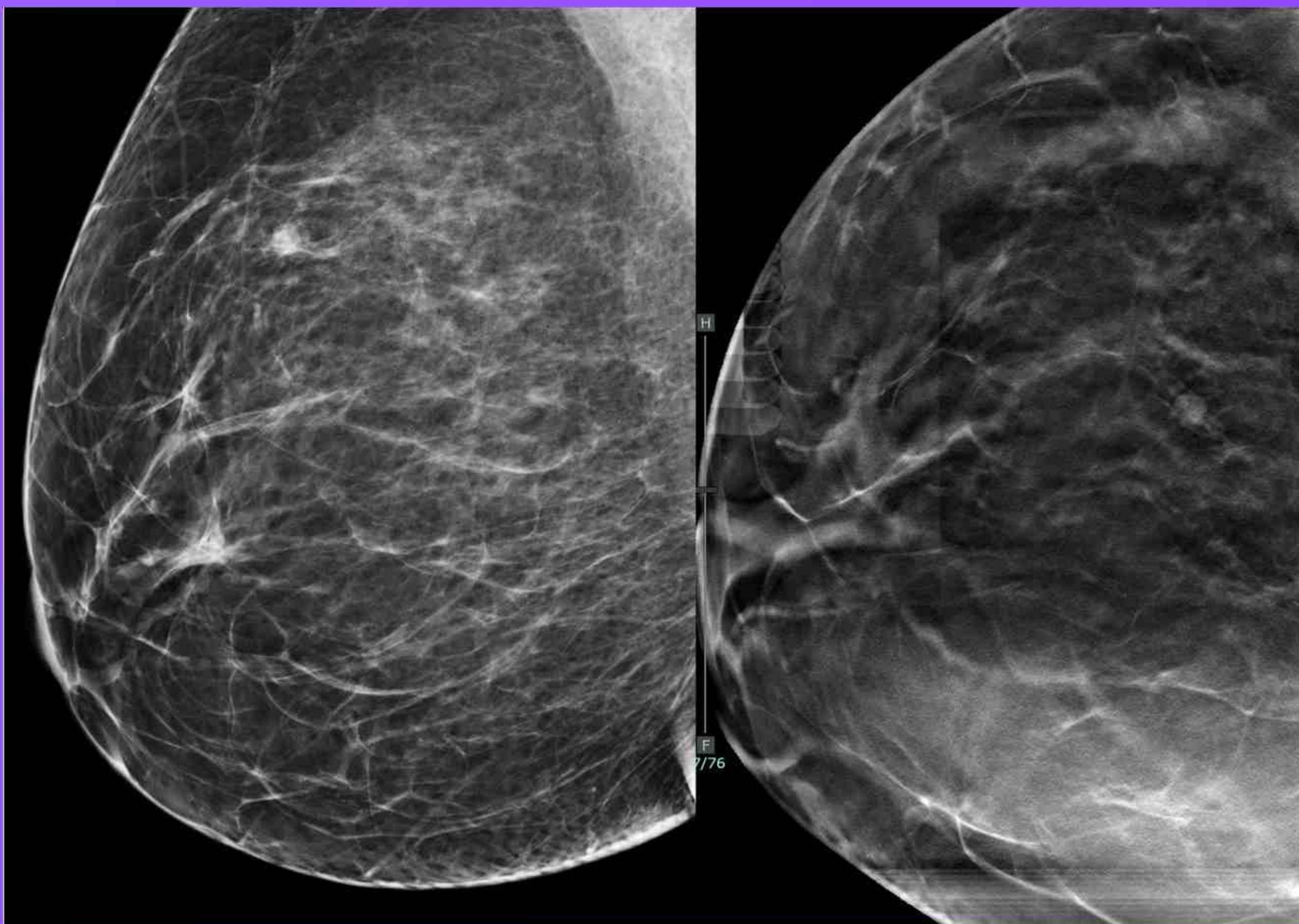


Figure 3: 61 year old with new 6mm mass. Final pathology B5a – low grade DCIS

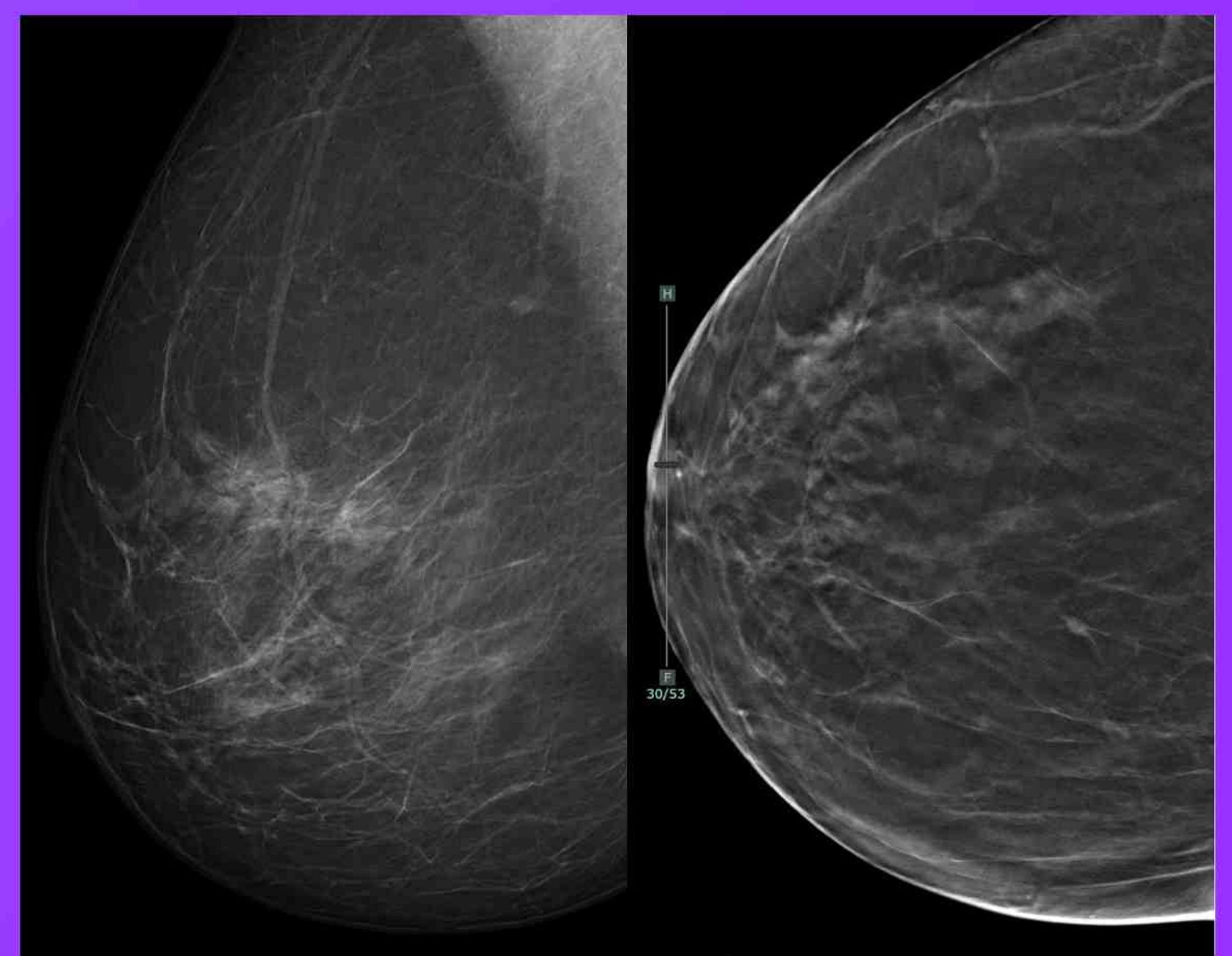


Figure 4: 57 year old with new 4mm mass. Final pathology B2, cyst

## Conclusions

- 1) 21% of ultrasound occult masses had malignant final pathology. This fell to 5% if the lesion was well defined
- 2) Over the 2 year period no patient from the prevalent round had an ultrasound occult malignant mass (21 patients)