

Methodology: 18 patients with post NACT T4b lesions were included in the study. Tissue was taken from the skin zone and core of the tumour. The tissues were studied histopathologically with reference to density of malignant cells (>3 clumps), tubule formation, nuclear pleomorphism, mitotic score, TILs and vascular density at the periphery. The results were analysed using t-test (first three) or chi-square (last three) using SPSS-version 24.0. ALDH1 (surrogate CSC marker) expression of different areas was assessed.

Result: Malignant cell-density (p 0.023), mitotic score (p 0.0184), nuclear pleomorphism (p 0.0290) and vascular congestion (p 0.0233) was significantly more persistent after chemotherapy at the dermal component while TILs (p 1.0) and tubule formation (p 0.25) was insignificant. ALDH 1 expression was significantly (p 0.023) more in chemoresistant areas.

Discussion: Breast cancer is less sensitive to NACT once there is gross skin involvement. The disease shows a heterogeneous response. This is because of the linear migration of cancer stem cells from core area to the surface. Study of T4 lesions offers opportunity for study of heterogeneous nature of breast cancer.

P027. THE UNEXPECTED UNPLEASANT SURPRISE: MALIGNANCY ON HISTOPATHOLOGY FOLLOWING DUCT EXCISION SURGERY - IS IT AVOIDABLE?

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Background: The unexpected diagnosis of cancer following total duct excision is distressing for patients. Despite advances in radiology and the description of suspicious nipple discharge, we still occasionally fail to detect malignant disease preoperatively.

Aim: To review the pathological findings of total duct excision with reference to pre-operative symptoms, ultrasound or mammographic findings and identify features associated with increased likelihood of malignant disease.

Methods: Data were collected retrospectively of all patients who underwent total duct excision surgery in single centre (2011–2017). Pre-operative demographics, symptoms and imaging findings were recorded and correlated with subsequent pathology.

Results: 214 patients underwent total duct excision; data was available for 211. Median age was 53yrs. 175/211 (82.9%) patients had benign pathology (duct ectasia, papilloma without atypia, fibrocystic change) on final histological examination, 21/211 (10.0%) had 'risk' lesions (papilloma with atypia, ADH) and 15/211 (7.1%) had malignancy (DCIS). Of the 15 patients with malignant lesions, 6/15 (40%) had normal imaging (M1, U1). 71/211 (33.6%) had normal imaging (M1, U1): 60/71 (84.5%) had benign disease, 5/71 (7.0%) had 'risk' and 6/71 (8.5%) had malignant lesions. 83/211 (39.3%) patients presented with bloody discharge: 64/83 (77.1%) had benign pathology, 9/83 (10.8%) risk and 10/83 (12.0%) malignancy. 38/211 (18%) patients presented with non-bloody discharge: 32/38 (84.2%) had benign disease, 4/38 (10.5%) risk and 2/38 (5.3%) malignant lesions.

Conclusion: Neither imaging nor presenting symptoms correlate with likelihood of malignant disease being present at final pathology. Even with advances in pre-operative diagnosis, total duct excision remains an essential diagnostic and therapeutic procedure.

P028. VITAMIN D DEFICIENCY IN MASTALGIA: IS IT A COINCIDENCE OR AN ASSOCIATION?

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Introduction: Mastalgia is the commonest reason for presentation of a female in a breast OPD. Various medicine and lifestyle modifications have been suggested with variable results. The role of Vitamin D in subtle regulation of oestrogen-progesterone internal milieu is evolving.

Aims: To evaluate the role of vitamin D in relieving mastalgia.

Methodology: Patients presenting with mastalgia were triple assessed and those presenting with clinically impalpable and radiologically benign (up to BIRAD II) were included in the study. The patients were randomly divided into 2 groups: Group A (n=79) who received EPO only and Group B

(n=80) who received EPO and vitamin D at a dose of 60,000 units per week over a period of 6–12 weeks. The response rates in the two groups were assessed by VAS.

Results: Total 159 patients with mastalgia were studied. 79 patients treated with EPO only showed insignificant response -32, moderate response - 30 and good response - 17. 80 patients treated with EPO and vitamin D showed good response - 56, moderate response - 16, insignificant response -8. (Response p value= 0.016.)

Discussion: Increased levels of oestrogen and progesterone cause ductal dilatation which is responsible for breast pain prior to the onset of menstruation. Vitamin D reduces progesterone 10% and oestrogen 3% with 4ng/ml increase in vitamin D levels.

Conclusion: There is an evident deficiency of vitamin D of varying degrees (mild to severe) in 78% of patients with mastalgia. Supplementation of vitamin D in mastalgia is strongly associated with reduction of breast pain.

P029. DOES EVERY YOUNG WOMAN PRESENTING WITH A SOLID BREAST LUMP REQUIRE A BIOPSY? SIX YEAR EXPERIENCE OF A REGIONAL BREAST UNIT

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Introduction: Breast lumps are common in young women yet are frequently benign. Association of Breast Surgeons (ABS) guidance (2010) recommends that women <25 years with a presumed fibroadenoma satisfying benign criteria do not require a biopsy. We wanted to review the sensitivity of these criteria to detect benign lumps in the local population and explore whether the age could be extended to 35 years.

Methods: From May 2012 to April 2013, details of all women aged ≤35 years attending a symptomatic clinic with a solid breast lump were prospectively recorded. Variables included examination (P1–5), family history, ultrasound (U1–5) and pathology. 'Benign' criteria included P1–3, size <3cm, static, no significant family history and U2. Initially all lumps were biopsied.

Results: From May 2012–April 2013 there were 61 cases ≤35 years. 33 (54%) satisfied ABS criteria and all were benign on biopsy. There were 4 cancers, all failed criteria. From these results, a 'no biopsy requirement' for women ≤25 years was introduced in June 2013. From May 2013–November 2018 there were 367 cases, 190 passed benign criteria (190/367, 52%). Of the remaining 177 that failed, all were biopsied. 158 were subsequently benign (158/367, 43%) and 19 malignant (19/367, 5%). From November 2014, the no biopsy requirement was extended to ≤30 years. To date 144 patients have been seen and discharged without biopsy.

Conclusion: Our results reaffirm ABS guidance for women under 25 years and provide evidence that this could be safely extended to include women aged 30 years and younger.

P030. RETROSPECTIVE REVIEW OF BENIGN PHYLLODES CASES TO ANALYSE TREATMENT, FOLLOW-UP PRACTICE AND FACTORS PREDICTIVE OF LOCAL RECURRENCE

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Introduction: Phyllodes tumours are rare fibroepithelial tumours, traditionally described to have high rates of local recurrence (LR). There is no consensus regarding margins of excision. Our aim was to ascertain our practice and factors contributing to LR.

Methods – Retrospective data collection from electronic patient records for cases identified from pathology data base from January 2000 to June 2018. Fisher's exact test used to calculate p values to define factors associated with LR.

Results – We identified 317 cases of phyllodes of which 155 were benign. 14 had incomplete data, hence 141 were included. Mean age was 42yrs and follow-up 35 months. Three underwent mastectomy, 62 WLEs, 73

enucleation and 6 vacuum assisted excision. Mean size was 39mm (Range 8 – 250 mm). Margins were not specified in 10. Seventeen had LR (12.1%) at mean of 45 months from primary surgery. Age, tumour size (3cm and 5cm cut offs) and type of surgery (WLE + Mastectomy verses enucleation or less) were not associated with LR. Completeness of excision was the only significant factor (p value 0.0052). 16 LRs were symptomatic - 2 malignant, 2 borderline and 7 multiple eventually requiring mastectomy. Follow-up recommended to 89; 39 clinical and radiological, 17 radiological and rest, only clinical. Duration of follow-up recommended was variable.

Conclusion – LR rates for benign phyllodes are low overall. Completeness of excision is significantly associated with LR. Being breast aware might be more useful than regular follow-ups as most LRs were symptomatic. We could use this information to guide local practice.

P031. PATTERNS OF SELF-REFERRAL FOR BREAST CANCER SCREENING IN WOMEN AGED OVER 70 IN WALES BETWEEN 2005 AND 2016

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Introduction: In Wales, routine invitation for breast screening stops at 70 years of age. Women over 70 can self-refer for continued screening if they choose to.

Methods: Retrospective review of NHS Breast Cancer Screening Database (NBSS) looking at patterns of self-referral appointments and resultant cancer diagnoses in women over 70 years in Wales between 2005-2016 with respect to the Welsh Index of Multiple Deprivation score.

Results: During the review period 38,853 women aged over 70 requested 55,950 breast screening appointments. 13,497 (34.7%) women attended more than one 'additional' screening with the majority attending once more beyond 70 years. 2875 (5.1%) were recalled following the screening episode, of which 929 had a screen-detected cancer diagnosed (23.9 cancers per 1000 women screened). 774 (83.5%) had invasive disease. The median age of women who self-referred was 74 years (range 71–95 years). More appointments were requested by and more cancers were diagnosed in women from the least deprived WIMD quintiles than those from the most deprived quintiles.

Quintile	Number of appointments (%) n=55950	Number of cancers (%) n=929
1 (most deprived)	5463 (9.4)	93 (10.0)
2	9797 (16.9)	145 (15.6)
3	12729 (22.0)	186 (20.0)
4	14632 (25.3)	264 (28.4)
5 (least deprived)	13329 (23)	222 (23.9)
Missing	1892 (3.3)	19 (2.0)

Conclusion: Women from more affluent backgrounds are more likely to self-refer for breast cancer screening beyond their 70th birthday than those less well-off. We found a high cancer detection rate in this age-group per 1000 women screened.

P032. REVIEW OF BREAST CANCER DIAGNOSES IN WOMEN AGED OVER 70 YEARS IN WALES: A COMPARISON BETWEEN SCREEN-DETECTED AND SYMPTOMATIC PRESENTATIONS BETWEEN 2010-2012 WITH 5 YEAR FOLLOW-UP

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Introduction: Women over 70 years can self-refer to breast screening but most cancers in this age-group are symptomatic presentations.

Methods: Retrospective review of prospectively held cancer registry database (CANISC) of breast cancers diagnosed in women aged over 70 between 2010-2012. Cancer outcomes for screen-detected and symptomatic presentations were compared statistically using Chi-squared and Mann-WhitneyU as appropriate.

Results:

	Screen-detected n=363 n(%)	Symptomatic n=2180 n(%)	p-Value
Median age(range)	73(70-91)	79.5(70-104)	<0.001
Non-invasive	65(17.9)	119(5.5)	<0.001
Invasive	298(82.1)	2054(94.2)	
Grade 0/1	78(21.4)	257(11.8)	<0.001
G2	158(43.5)	1136(52.1)	
G3	56(15.4)	520(23.9)	
Missing	71(19.6)	268(12.3)	
ER+	281(77.4)	1709(78.4)	0.046
HER2+	26 (7.2)	243(11.1)	0.072
Tis	27(7.4)	31(1.4)	<0.001
T1	173(47.7)	331(15.2)	
T2	43(11.8)	588(27.0)	
T3	5(1.4)	89(4.1)	
T4	0(0)	102(4.7)	
Missing	115(31.7)	1039(50)	
N0	199(54.8)	598(27.4)	<0.001
N1-3	39(10.7)	457(21.0)	
Missing	125(34.4)	1125(56.1)	
M0/ Mx	362(99.7)	2078(95.3)	<0.001
M1	1(0.3)	102(4.7)	
BCS	237(65.3)	482(22.1)	<0.001
Mastectomy	103(28.4)	731(33.5)	
No surgery	23(6.3)	967(44.4)	
SLNB	256(70.5)	707(32.4)	<0.001
Survival (months), median (range)	77(4-97)	62(0-97)	<0.001
5-year survival	318(87.6)	962(44.1)	<0.001

Conclusion: Allowing for data-recording inaccuracies, this review shows women with symptomatic presentation over 70 present with more advanced disease and are less likely to receive surgical treatment than those who self-refer for breast cancer screening.

P033. THE IMPACT OF COMMUNITY OUTREACH BLACK AND ETHNIC MINORITY BREAST HEALTH AWARENESS SEMINAR: ADDRESSING HEALTHCARE INEQUALITIES

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Introduction: Breast screening rates among Black, Asian, and minority ethnic groups (BAME) in Bristol are 2.6%, compared with 53.7% of white women. An educational event was organised in order to improve knowledge and understanding of breast health in the BAME community, and gather information from service users about what barriers existed and ideas for how to overcome them.

Methods: An event was arranged in partnership with Bristol Health Watch involving clinicians and plastic breast care nurses from Southmead Hospital. The event included educational lectures and breakout focus groups in a relaxed community setting. A self-rated questionnaire was distributed asking participants to rate their knowledge and understanding of breast health.

Results: A total of 40 women attended of whom 25 completed feedback. Knowledge and understanding of breast health increased from good or excellent in 32% pre-event, to 84% post-event. Fourteen women already attended breast screening prior to attending, but 23 women planned to attend after the event (an increase of 39%). All respondents planned to encourage friends and family to attend breast screening. Areas for improvement identified from focus group feedback included appropriate locations for advertising and holding similar events, and images of women from BAME groups in literature about breast health.