



Impact of Breast Pain on Health Care Utilisation in a Clinic Based Sample and its Associated Life Style Factors

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Abstract

Objectives: Mastalgia is a common presentation in breast new patient clinic in the UK and poses significant pressure on the utilisation of breast services. A prospective descriptive study was carried out to evaluate the prevalence of breast pain, aetiology and associated pattern of health care utilisation.

Method: We assessed the aetiology of breast pain in a clinic based sample using a questionnaire distributed to patients presenting with breast pain over a 3month period and recorded their investigations and outcomes.

Results: Over the 3months period, 526 patients attended breast clinic, of those 115 presented with breast pain (22%). 32(28%) of these patient were under age 35. Imaging studies was performed in 96% of patients and they were found to be normal or benign in 99% of cases. All patients under age of 35 had normal scans. Lifestyle questionnaire reviewed a weak association with lifestyle factors such as smoking (20%), moderate to high caffeine intake (15%), alcohol (5%). 45% patients suffers from other pain issues.

Conclusions: Breast pain is a common condition, which poses a significant pressure on utilisation of breast services, accounting for 22% of referrals in our current study. It is associated with high use of mammography in young women. Aetiology of breast pain remains unclear. Should we continue to perform investigations in patients with breast pain alone and normal clinical examination or should we tailor to age/risk? Further studies needed to understand the pathology and associated factors.

Introduction

Breast pain, or mastalgia, is a common complaint amongst women, affecting up to 70% of women at some stage[1, 2]. Breast pain has been described as cyclical (in relation to the menstrual period) or non-cyclical (unrelated to the menstrual period). Due to increased awareness of breast cancer, more

women than ever before are seeking professional advice, making breast pain one of the most frequent complaints in breast clinic and account for 40-50% breast clinic referrals[3]. The association between breast pain and breast cancer risks remains unclear with some studies suggesting an increased cancer risk[4], and others suggesting breast pain as a protective factor, reducing cancer risk[5].

Despite the prevalence of breast pain, there remain to be very limited studies on the pathophysiology of breast pain. Several studies have attempted to elucidate the aetiological factors that are associated with breast pain[6, 7]. Hormonal assays of oestrogen, progesterone, and prolactin have not shown any association with breast pain[8, 9]. Some studies have found that patients with mastalgia has increased frequency of anxiety and depression[10]. A population-based study has found increased risk of mastalgia with caffeine intake and smoking[1], others have shown that caffeine abstinence is associated with resolution of fibrocystic change[11], although there are some inconsistencies in the literature with others who do not support this finding[12]. One study has shown that duct ectasia may be associated with the severity of mastalgia, with the degree of duct dilatation positively correlating with intensity of breast pain[13].

The current study aim to define the prevalence, and the social and health factors associated with breast pain. We also aim to determine the associated patterns of health care utilization with breast pain. We attempt to observe any the biopsychosocial factors contributing to mastalgia.

Methods

Participants: Data was collected prospectively and consecutively from patients who attended breast clinic over a three-month period to a single breast referral clinic between September 2010 and December 2010. Referral letters were reviewed. New patients referred with primary presenting complain as breast pain were included. Clinic staff was asked to take informed

consent from patients at check-in prior to the distribution of questionnaire. Whilst waiting for their consultation, a questionnaire was distributed to participants, which they completed prior to seeing the surgeon.

Questionnaire: A questionnaire, which was developed by the authors, was designed to explore social factors and habits from patients. The questionnaire consisted of 20 questions, and consisted of free texts and multiple-choice answers to explore the following areas:

1.1 Demographics including age, marital status, occupation

1.2 History about the pain: Pain score was used which was derived from the McGill Pain Questionnaire.

1.3 Social factors including dietary intake, caffeine, alcohol consumption: Participants were asked about frequency of consumption of certain foods, caffeine, dietary supplements

1.4 Risk factors for breast cancer: Participants asked about family history of breast cancer, previous history of breast cancer, and any benign breast disease.

1.5 Other associated pain problems: Participants asked to comment on whether they suffer from pain elsewhere, and asked whether they suffer from fibromyalgia, chronic pain syndromes, and regional pain syndromes.

1.6 Perceived stress and perceived healthiness: Participants asked whether they consider themselves as under stress over the past month and whether they consider themselves as healthy.

A second questionnaire was used by the investigators to record the use of imaging, and the results and outcomes of any histopathological examination.

Results

526 patients attended breast clinic over the 4 month period. 132 presented with breast pain (25%), of which 115 patients completed the questionnaire, response rate of 87%. 28% of patients were under age 35. The median age was 42. The demographics of the participants are demonstrated in Table 1.

21 patients complained of cyclical pain (18%) compared to 94 who complained of non-cyclical pain (82%). The most common presenting complain was "aching in one breast". 78% of these patients state this

was not brought on by any activity and the majority state that there was no alleviating factors. 72% patients scored the pain of 3/5, but this does not affect daily activity in most patients.

Other lifestyle questions revealed that 20% were current smokers, 15% had moderate – high caffeine intake. 5% drinks alcohol over the recommended weekly limits. A high percentage of patients had other pain issues including chronic back pain, regional pain syndromes, and fibromyalgia.

Follow-up study of these patients to investigate the associated healthcare utilisation revealed that 96% of patients presenting with breast pain had imaging study at the one-stop clinic. The rest of the patient were examined and reassured with no further investigations. 33% of patients were given a follow-up appointment, whilst 67% were discharged after the first consultation. Malignancy was found in 1 patient, who also had other risk factors for breast cancer.

Discussion

This current study showed that breast pain is a common problem presented to the new breast patient clinic in the UK, making up 25% of all patients seen in our current study. This is associated with a high use of imaging study done in young patients. Risk of breast cancer in patients presenting with breast pain is low amongst patients with no family history or other risk factors.

Interestingly a large number of patients who were referred with breast pain had other pain syndromes, such as fibromyalgia, chronic pain, and regional pain syndromes. A recent study showed that there maybe associations between mastalgia and fibromyalgia. [14]

Only a small percentage of patients who presented with breast pain were smokers or had high caffeine intake. The aetiology of breast pain remains unclear. This current study showed that breast pain poses a significant pressure on utilisation of breast services. A case-controlled study will need to be done to determine possible aetiology and whether the social and lifestyle factors examined here are more prevalent amongst patients with breast pain.

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