

The long-term course of mastalgia

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SUMMARY

Mastalgia is a common condition in women of reproductive years. We have assessed the long-term course in patients with severe mastalgia by distributing a postal questionnaire to 212 patients previously studied in 1983 who had attended the mastalgia clinic at the University Hospital of Wales, Cardiff.

175 patients (83%) responded, with an original diagnosis of cyclical mastalgia (CM) in 120 and non-cyclical mastalgia (NCM) in 55. The median age of onset of breast pain was 36 years (range 12-63 years). The average duration of pain was long (median 12 years), especially if it started in the second or third decade of life. Pain persisted in 68 (57%) of CM and 35 (64%) of NCM patients. In CM patients resolution was commonly associated with a 'hormonal' event, notably the menopause; in NCM patients it more often seemed to be spontaneous. Severe mastalgia ran a chronic relapsing course often requiring repeated drug treatments.

INTRODUCTION

Breast pain or mastalgia accounts for 40-50% of referrals to breast clinics¹. Its classification²⁻⁴ and treatment^{5,6} are well documented. When counselling patients and deciding how to treat, a clinician requires an understanding of the natural history of the condition. In 1973 a dedicated mastalgia clinic was established in the Department of Surgery at the University Hospital of Wales, Cardiff. Patients were referred after exclusion of any overt disease and when reassurance proved insufficient treatment. Only 15% of patients who come to the breast clinic with breast pain require referral to the mastalgia clinic⁵. In these, the character and severity of the mastalgia are assessed with a standard pain chart completed over two months. Early experience of the disease course in these patients was reported by Wisby *et al.* in 1983⁷. We have undertaken a long-term follow up (at least 10 years) in the same group.

METHODS

A postal questionnaire, which had been piloted in a separate group of mastalgia patients, was distributed to the 212 patients with cyclical (CM) and non-cyclical (NCM) mastalgia originally reported by Wisby *et al.*⁷. Those who had subsequently developed breast cancer (5), had undergone surgery for mastalgia (1), had suffered from Tietze syndrome (17), or had changed address (23) were excluded.

The questionnaire asked whether the mastalgia had persisted or had resolved since 1983, an important aim being to identify factors associated with resolution.

RESULTS

Completed questionnaires were returned by 175 patients (response rate 83%). 120 (69%) of these had originally

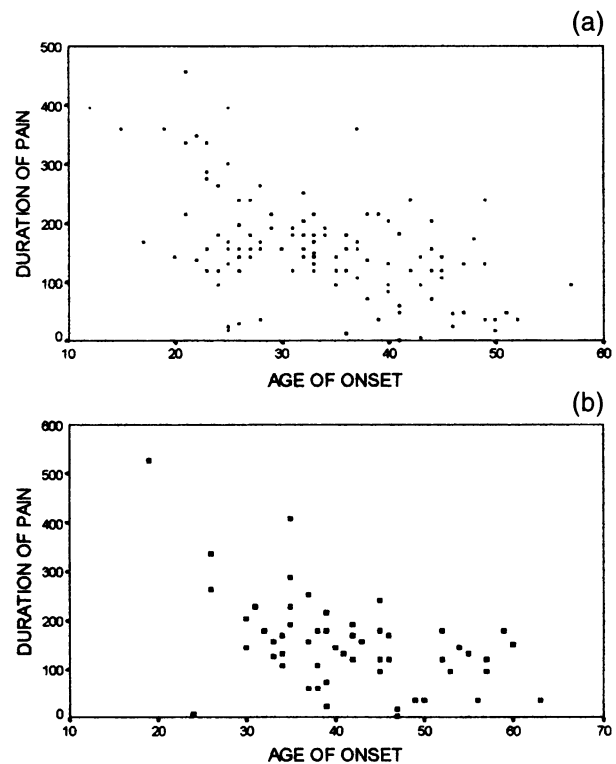


Figure 1 Effect of early age of onset on duration of (a) cyclical and (b) non-cyclical mastalgia

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Table 1 Events associated with resolution

Event	CM	NCM
Child birth	4 (8%)	2 (10%)
Breast feeding	3 (6%)	0 (0%)
Oral contraceptive pill	1 (0%)	0 (0%)
Menopause	22 (42%)	4 (20%)
HRT	9 (17%)	1 (5%)
Hysterectomy	6 (12%)	2 (10%)
Spontaneous	7 (14%)	8 (40%)

HRT=Hormone replacement therapy; CM=cyclical mastalgia; NCM=non-cyclical mastalgia

Table 2 Effect of hysterectomy

	Improved	Worse	Unchanged
CM			
Hysterectomy alone	7/21 (33%)	2/21 (10%)	12/21 (57%)
Hysterectomy+BSO	2/16 (13%)	1/16 (7%)	13/16 (80%)
NCM			
Hysterectomy alone	6/14 (43%)	2/14 (14%)	6/14 (43%)
Hysterectomy+BSO	1/6 (17%)	0	5/6 (83%)

BSO=bilateral salpingo-oophorectomy. See Table 1 for key to other abbreviations

been diagnosed as having CM, 55 (31%) NCM. The mean follow-up was 14.5 years, range 11–17.5.

The median age of onset of mastalgia was 36 years. The CM patients (median 34, range 12–51) tended to develop their pain earlier than the NCM group patients (41, 19–63). In both groups the breast pain tended to be longlasting (median 12 years, range 1 month–38 years), and was especially so in CM patients who developed breast pain in the second and third decades (Figure 1). 68 patients (57%) had persistent pain, 17 having relapsed since the previous study. 35 (64%) of the NCM patients still had pain, 7 having relapsed.

Table 3 Effect of mastalgia on lifestyle

Daily activity	Type of breast pain	Nil	Slight	Moderate	Severe
Sexual relations	CM (68)	26 (38%)	20 (29%)	12 (18%)	7 (10%)
	NCM (35)	16 (46%)	2 (23%)	3 (9%)	4 (11%)
Sleep	CM (68)	26 (38%)	33 (49%)	4 (6%)	2 (3%)
	NCM (35)	14 (40%)	12 (34%)	4 (11%)	2 (6%)
Work	CM (68)	32 (47%)	24 (35%)	6 (9%)	3 (4%)
	NCM (35)	17 (49%)	10 (29%)	3 (9%)	1 (3%)

Events relating to symptom relief

In 52 (43%) patients with CM the pain had resolved, and in most cases resolution had been related to a 'hormonal' event—notably, the menopause. In 20 (46%) patients with NCM the pain had resolved, and the rate of 'spontaneous' resolution was higher than in the CM group (Table 1).

A total of 57 patients had a hysterectomy after the diagnosis of mastalgia—37 CM, 20 NCM. In a quarter of each group the operation was associated with improvement of symptoms. Whether they also had bilateral salpingo-oophorectomy did not seem to make a difference (Table 2).

Effects of treatment

Evening primrose oil, danazol and bromocriptine can be effective in the treatment of mastalgia. Only 54 of the 120 CM patients had tried such treatments, of whom 37 (69%) believed they had substantially relieved the symptoms. Of the 33 NCM patients who had tried drug treatments, 17 (52%) had found them helpful.

Effect of mastalgia on lifestyle

In most of the patients who continued to have mastalgia (68 CM, 35 NCM) the pain had little or no effect on daily activities. Of the activities enquired about, sexual relations were affected most (Table 3).

DISCUSSION

This long-term follow-up confirms the chronic nature of severe cyclical and non-cyclical mastalgia, with the majority of women experiencing pain for at least 5 years. The nature of the pain may change with time: over half the cases that were initially cyclical are now classified as non-cyclical. Resolution of cyclical mastalgia is usually associated with a hormonal event and by definition this variant resolves with the menopause. However, in patients whose CM has changed to NCM, the menopause may have no beneficial effect.

In most patients breast pain had a negligible effect on lifestyle, even though about half needed treatment. Drug

treatment seemed more beneficial in CM than in NCM. Studies on patients with NCM have shown fewer abnormalities of hormone release⁷ and a poorer response to drug treatment⁵. However, if one excludes patients with Tietze syndrome and lateral chest wall pain, response rates in CM and NCM become similar⁴.

Cyclical and non-cyclical mastalgia both run a chronic relapsing course. If mastalgia is severe and develops at an early age then the pain is likely to persist for many years. This is important because these patients may need multiple courses of drug treatment or a continuous low-dose regimen. However, if pain develops near the menopause then drug treatment may be delayed in the knowledge that all patients with CM and many with NCM lose their pain at the menopause.

The high rate of hysterectomy, 31% CM and 36% NCM, supports the suggestion^{1,4,5,8} of an underlying abnormality in uterus as well as breast, both hormone sensitive organs. One might then expect bilateral salpingo-oophorectomy to increase the likelihood of improvement. The fact that it did not may be related to the loss of ovarian function seen even in women whose ovaries are preserved⁹⁻¹¹.

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