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Mastalgia in Daily Practice

Günlük Pratikte Mastalji

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ABSTRACT

Objective: Mastalgia is a common complaint encountered in polyclinics. The causative pathologies of mastalgia are either because of the breast or other regions. We aimed to share the causes of mastalgia which we detected in the polyclinics.

Materials and Methods: The retrospective evaluation of the files of 1150 patients with mastalgia out of 3200 patients who had applied at our breast polyclinics between June 2011 and August 2012 was carried out. When evaluation of 620 patients with mastalgia had been made, exclusion criteria were the presence of concomitant complaints such as mass, discharge, retracted nipple. Patients with cyclic mastalgia complaints were also excluded from the study. Pure complaints of mastalgia in 530 patients were evaluated for organic pathologies in regard to anemnesis, physical examination, radiological and laboratory findings.

Results: When 530 patients with pure mastalgia were evaluated, breast pathologies were detected in 115 patients. Fibrocystic mastopathy in 67, fibroadenoma in 18, cyst in 19, abscess in 3, granulomatous mastitis in 2, breast cancer in 2 and high prolactin levels in 4 patients were detected. The remaining 20 patients were sent to radiology guided biopsies and were excluded from the records. A total of 35 patients with mastalgia had had psychiatric drug usage either currently or in the past. No breast pathology was detected in 395 of 530 patients and 53 of those 395 patients were sent to orthopedic consultation in whom 36 were found to suffer from cervical or shoulder pathologies.

Conclusion: When patients with mastalgia were evaluated, it was detected that both breast pathologies and nonbreast problems concerning the breast were the reasons for admission to polyclinic because of the pain. Reasons for pain with no breast origin should also be investigated in patients with complaints of pure mastalgia and without radiological evidence of breast disease.

Key words: Mastalgia, polyclinic, mastodinea

ÖZET

Amaç: Çalışmamızda; mastalji şikayeti bulunan hastalarda tespit edebildiğimiz nedenleri paylaşmayı amaçladık.

Yöntem ve Gereçler: 2011 Haziran-2012 Ağustos arasında meme polikliniğine başvuran 3200 hastadan, mastalji yakınması olan 1150 hasta dosyası retrospektif olarak incelendi. Mastalji yanında ek şikayeti bulunan (kitle, akıntı, meme başı çekintisi gibi) 620 hasta çalışma dışı bırakıldı. Siklik mastalji şikayeti olan hastalar değerlendirmeye alınmadı.

Bulgular: Pür mastalji şikayeti olan 530 hasta incelendiğinde, 115 hastada meme patolojisi saptandı. Seride 67 hastada fibrokistik mastopati, 18 hastada fibroadenom, 19 hastada kist, 3 hasta da abse, 2 hastada granulamatöz mastit, 2 hastada meme kanseri saptandı. Ayrıca 4 hastada ise prolaktin yüksekliği tespit edildi. Hastaların 395 tanesinde tetkikler neticesinde memeye ait herhangi bir patoloji saptanmadı. Bu hastalar tekrar sorgulandı ve bazılarında meme dışında boyun, omuz, kol, sırt bölgelerinde ağrı tarifledi görüldü. Ağrı şikayeti olan 53 hasta ortopedi ve travmatoloji polikliniğine yönlendirildi. Bunların 36'sında boyun ve omuz patolojisi tespit edildi.

Sonuç: Pür mastalji şikayeti ile gelen ve radyolojik olarak patoloji saptanmayan hastalarda meme dışı nedenlerin de araştırılması gerekmektedir.

Anahtar sözcükler: Mastalji, poliklinik, mastodini

Introduction

Mastalgia is defined as unilateral or bilateral tension, ache and pain in addition to nipple pain. Half of the women admitted to breast polyclinics are reported to suffer from mastalgia. Mastalgia can be encountered in 70% of women who are younger than 55 years of age. It is possible to define premenstrual mild mastalgia with a duration of 1-4 days as normal provided that it has a cyclic character. However, moderate to severe breast ache which lasts 5 or more days can be defined as mastalgia (1, 2). Although mastalgia has been the most common breast disorder, it usually presents itself as fibrocystic changes.

The clinical and macroscopic characteristics of fibrocystic changes, which had been defined by Bilroth in Wien initially, was described by Sir Benjamin Brodie in 1846 (3).

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Most of the cyclic breast pain are of mild to moderate intensity and are accepted as part of normal changes which occur during the menstrual cycle (4). Noncyclic mastalgia is usually encountered in old women and can be classified as localized pain at the thoracic wall, reflected pain and diffuse real breast pain (5, 6). It is usually easy to differentiate the pain which takes origin from the breast or chest wall and the pain reflected from elsewhere. However, diagnosis can be difficult in cases with unreliable findings or in cases with more than one cause of pain.

Pain due to cardiac problems or malignancy can be the underlying causes if there is a triggering reason for pain (7). Other causes of pain without breast origin are very rare. However, pain without breast origin should also be evaluated carefully.

Materials and Methods

The retrospective evaluation of 1150 patients with mastalgia out of 3200 patients who had presented at our breast polyclinic between June 2011 and August 2012 was carried out. There was no ethics commitee approval for this study. Written informed consent was obtained from patients who participated in this study. When evaluation of 620 patients with mastalgia had been made, exclusion criteria from the study were the presence of complaints such as mass, discharge, retracted nipple. Patients with cyclic mastalgia were also excluded from the study. Pure complaints of mastalgia in 530 patients were evaluated for organic pathologies in regard to anamnesis, physical examination, radiological and laboratory findings. Bilateral breast and axillary examinations in addition to mammography and or ultrasonography according to age was carried out (ultrasonography or mammography for patients under or over 35 years, respectively). Prolactin and other hormones were also recorded in cases in whom no breast pathology could be detected according to imaging modalities.

Patients without any organic pathology according to physical and radiologic examinations were asked about neck and shoulder pain and sent for an orthopedic examination if they had some related complaints. There is no statistical analysis for this study. Numerical analysis was carried out.

Results

When 530 patients with pure mastalgia were evaluated; the distribution of breast lesions in patients with pure mastalgia, the causative conditions detected in the orthopedic examination and the evaluation of pain with and without breast origin are shown in Tables 1, 2 and 3, respectively.

Patients who were sent for orthopedic examination were diagnosed to be suffering from cervical hernia [12], cervical arthropathy [10], loss of cervical lordosis [6], impingement syndrome (rotator cuff tear) [2], arthritis [5] and myalgia [16]. Hence, musculoskeletal pathology was detected in 52 (13%) of 395 patients with pure mastalgia in whom no breast pathology could be found. Neck and shoulder pathologies were found in 98% of patients in whom mastalgia was the only symptom without breast pathology. While physiotherapy was employed in 8 of them, 2 were sent for neurosurgical consultation. The remaining of them were treated by non-steroidal antiinflammatory drugs. The physical examinations were normal in patients with granulomatous mastitis, malignancy and abscess in the series.

The character of pain in two patients with malignancy was not cyclic. The patients with mastalgia only were not advised on any treatment except for follow-up.

Discussion and Conclusions

Pain, which is accepted as the most well-known and embarrassing but most commonly encountered interaction, has physical, behavioural, cognitive and emotional dimensions (8). Mastalgia is the leading complaint in women which is caused by different reasons. It is also one of the problems which seriously involves public health.

Pain influencing the daily life with its intensity, which lasts more than 5 days is mastalgia (9). Either cyclic or noncyclic; mastalgia can be

Table 1. The distribution of breast lesions in patients with pure mastalgia

Detected breast lesions	Number of patients	%
Fibrocystic mastopathy	67	12
Fibroadenoma	18	3.3
Cystic breast lesion	19	3.5
Radiology guided biopsy (follow-up)	20	3.7
Malignancy	2	0.3
Granulomatous mastitis	2	0.3
Breast abscess	3	0.5
High prolactin level	4	0.7
	135	25.47

Table 2. The distribution of the causative reasons detected in orthopedic examination

Cervical hernia	12
Loss of cervical lordosis	6
Cervical artropathy	10
Shoulder cyst	1
Impingement syndrome	2
Arthritis	5
Myalgia	16

Table 3. The evaluation of pain with and without breast origin

Etiology	Pain with breast origin	Pain without breast origin	Total
Number of patient	135	395	530
Mean age	36.2	37.3	
Patients with ultrasonography	135	395	530
Patients with mammography	37	108	145
Pathologic lesion in mammography	18	0	18
Malignancy	2	0	2
Patients who had undergone biopsy	13	0	13

caused both by organic pathologies located within the breast or psychosomatic reasons.

There have been many studies on the psychosomatic causes of mastalgia. Hence, hormonal theories and psychogenic factors are also shown to take place in the etiology according to Colegrave et al. (10). A prospective cross-sectional study carried out in Marmara University evaluated psychological factors in patients with mastalgia without organic pathology and reported that suggestion therapy was beneficial in 85% of cases (11).

Mastalgia is a symptom which affects 70% of women who are within their productive ages. While mild mastalgia which lasts 1-4 days in the premenstrual period has been accepted as normal (8), severe mastalgia which affects daily life and begins 5 days before the menstrual period has been accepted as cyclic. Cyclic mastalgia affects 8-10% of premenopausal women.

Severe mastalgia negatively influences sexual life in 48%, physical activity in 36%, social life in 13%, work and education life in 6% of the patients (11).

While 85% of the patients recover without any important treatment, the remaining 15% are affected lifelong and use medical treatment continuously. Two-thirds of those patients have cyclic and one-third of them have noncyclic mastalgia (12). Premenstrual mastalgia or cyclic mastalgia can be found in 8-10% of premenopausal women. A daily mastalgia and menstrual symptom scale study lasting 3-6 months which was carried out with 32 premenopausal women, demonstrated clinically severe mastalgia in 11 of the patients (34.4%). The study showed that those women had pain for 10.2 days per month and prementrual syndrome (PMS) criteria was fullfilled by 5 (15.6%) of them. PMS does not affect 82% of women with cyclic mastalgia. Although cyclic mastalgia is accompanied by PMS, advanced clinical investigation is necessary since it is not a simple symptom of PMS (13).

Education and information is the most important treatment modality. Mastectomy or partial mastectomy is not the effective treatment of mastalgia. A study which followed up 234 patients with mastalgia for 2 years detected fibroadenoma in 17.5% and diffuse modularity in 70.1% of cases. Additionally, the rates of cyclic and noncyclic mastalgia were 61.5 and 38.5%, respectively. While cyclic mastalgia can be encountered only during the premenopausal period, noncyclic mastalgia can be seen both in the premenopausal and postmenopausal periods (14).

Aberrations of the normal development and involution (ANDI) system was used to investigate benign mastalgia where cyclic, noncyclic and extramammarian cases (such as costal pain) are included. The most important benign solid mass is fibroadenoma between 15-30 years of age when age groups are investigated. Mild and late reproductive ages usually have cysts within the breasts. Ductal ectasy and ductal papilloma should be suspected if there is bloody nipple discharge (15).

An increase in the volume of breast tissue (40%) within a period of 28 days was detected in a study carried out in Liverpool University between midcycle and the last week of the premenstrual periods according to magnetic resonance spectroscopy, MR images and t-2 relaxation times in 15 healthy women and 8 female patients with cyclic mastalgia in 2005. Fibrocystic changes and increase in water content within the breast tissue were evaluated and found to be the cause of mastalgia (16).

The relationship between breast cancer and mastalgia is in conclusive. According to a study reported in 2002 by Lumachi et al. (17), mastalgia was detected in 1141out of 2879 patients with breast symptoms in whom only 36 breast cancer was present. Only 5 out of 220 patients had mastalgia as the only symptom according to a study reported by Fariselli et al. (18) in 1988. Similarly 36 out of 536 patients had mastalgia as the only symptom according to a study reported by Preece et al. (19) in 1982.

In a study carried out by London University Brompton Hospital and Cardiothoracic Institute, 7 patients with cystic fibrosis with hypertrophic osteoarthropathy were found to suffer from mastalgia and/or gynecomastia (20).

All these studies showed that mastalgia can be encountered either cyclically or noncyclically, during premenopausal and postmenopasusal periods. Organic, physiological and psychological causes both of breast or nonbreast origins were reported. The most important factors are anamnesis, physical and radiological examinations. It is important that a patient with mastalgia had no malignancy for the differential diagnosis in the etiology.

In conclusion, mastalgia is a common complaint in breast polyclinics, which is sometimes easily ignored. We detected that breast cancer could be present in the etiology of noncyclic breast pain especially in premenopausal patients (2/530). We also detected that aches not of breast origin, especially of musculoskeletal origin, could be misperceived as mastalgia.

Conflict of Interest
No conflict of interest was declared by the authors.

Peer-review: Externally peer-reviewed.

Informed Consent: Written informed consent was obtained from patients who participated in this study.

Author Contributions
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