Sports Brassiere: Is It a Solution for Mastalgia?

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Abstract: Breast pain is a very common complaint in women presenting to the outpatient department. It causes a certain degree of discomfort, anxiety leading to repeated investigations, and to some degree disturbs their lifestyle. This prospective study was carried out at King Fahd Hospital of the University, Alkhobar. Two hundred women presenting to the outpatient surgical department with mastalgia were included; 100 women received treatment with danazole, and the other 100 were asked to wear sports brassieres for 12 weeks. They were requested to answer a structured questionnaire during the specified period, and an extensive review of the literature was also performed. Patients were compliant with the instructions. The first group had 58% relief of symptoms, but 42% experienced drug side effects; in the second group, all participants had some degree of initial discomfort followed by relief of symptoms in 85% of cases. Most patients claimed that their lifestyle had changed dramatically after using the sports brassieres. Mastalgia is a common disease that may run a chronic course. Many patients are unsatisfied with prescribed medications and tend to discontinue treatment when side effects develop. Active breast movement on its weak suspensory ligaments may contribute considerably to mastalgia. Good external support by sports brassieres can relieve most of the patient’s symptoms.

Key Words: breast pain, mastalgia, sports brassiere

Breast pain is a common complaint in women. It varies in presentation, severity, and its relation to the menstrual cycle. The correct treatment depends on an understanding of breast anatomy and physiology.

Most patients are unsatisfied with prescribed medications and visit many doctors, disrupting their lifestyle and work schedules. In view of these constant complaints from more than 80% of women visiting our outpatient department, this study was carried out.

MATERIALS AND METHODS

This study was carried out at King Fahd Hospital of the University, Alkhobar, Kingdom of Saudi Arabia. Two hundred women were included, all with some degree of both cyclic and noncyclic mastalgia. One hundred women were prescribed a 200 mg/day dose of danazole, and the other 100 were requested to wear sports brassieres during their regular daily activity for a period of 12 weeks and then were evaluated in the outpatient department. Both groups were supplied with structured questionnaires to answer on a daily basis.

RESULTS

The response rate was 100%. The women who received danazole had only 58% relief of symptoms and the symptoms recurred after stopping treatment; 42% experienced side effects such as nausea, vomiting, and attacks of dizziness, and 15% discontinued the treatment after such attacks.

Patients with sports brassieres had initial discomfort, followed by 85% relief of symptoms with no associated side effects. They were comfortable using the bras in their daily activities and their quality of life markedly improved. The other 15% used the sports brassieres...
only occasionally and had only temporary relief of symptoms.

**DISCUSSION**

The prevalence of mastalgia among women is a very distressing symptom, and accounts for more than 80% of breast complaints referred to the outpatient department. It is an entity largely ignored both scientifically and clinically. Both the anatomy and the physiology of the breast has to be understood in order to provide effective therapy.

Although the causes of mastalgia are not clearly understood, imbalances in estrogen and progesterone effects on the breast have been frequently implicated (1). Some degree of cyclic mastalgia is experienced by nearly all women with varying degrees of severity. However, when it lasts for more than 5 days a month it can interfere with their sexual, physical, social, and work activities (2).

Some studies suggest that the use of hormonal contraception for a period of 3 months can improve chronic mastalgia in up to 60% of patients with fibrocystic disease (3). Cyclic aberrations in lipid metabolism have also been incriminated and it is thought that this can be corrected by appropriate dietary regimens (4). Comparative studies using drugs such as danazole, bromocriptine, and primrose oil have proved them to be effective in 92% of cyclic mastalgia and 64% of noncyclic mastalgia cases, with primrose oil having the fewest adverse effects (5).

Cyclic mastalgia receives attention in all cultures, and studies carried out in Asia using gamolenic acid (Efa-mast) from evening primrose oil over a period of 6 months proved effective in 97% of oriental women with disturbing cyclic mastalgia (6). Mastalgia can be extremely disturbing, assuming a long chronic and relapsing course, even after menopause, and requiring repeated visits, mammograms, and drug treatments (7).

Noncyclic breast pain was subdivided into true noncyclic and musculoskeletal pain, the latter including Tietze’s syndrome. True noncyclic mastalgia is commonly bilateral and commonly located in the upper outer quadrant, as compared to musculoskeletal mastalgia, which is almost always unilateral, occurring along the lateral chest wall or over the costochondral junctions. In many instances patients are unable to specify the exact site of pain. Distinct differentiation and understanding of the pathophysiology of these two entities may lead to more effective treatment (8). Treatment with vitamin E for noncyclic mastalgia showed a 41% response rate with minimal side effects as compared to treatment with danazole (9).

Cyclic mastalgia is a common problem in the United States, and is associated with high use of mammography among young women (10). In this study the results of a 200 mg/day dose of danazole were no different from those published internationally, however, the use of breast support has shown that there is more than hormonal and metabolic elements that affect the breasts. Exercise usually results in a large displacement of the breasts, often leading to breast pain. Due to minimal intrinsic structural breast support, this motion is difficult to reduce. It is suggested that the primary anatomic support for the breasts are the Cooper’s ligaments, however, their true functional properties are unknown. In an attempt to reduce breast motion, external support has been developed. Normal activities and exercise, especially in large-breasted women not wearing the proper support, can cause some element of disturbing mastalgia. The use of sports brassieres does help in reducing breast motion, thereby reducing the pain (11).

**CONCLUSION**

Mastalgia is a real entity that deserves both clinical and social understanding. The use of medical treatment does help in improving the symptoms to some degree, however, symptoms may reoccur after cessation of therapy and there are associated side effects. On the other hand, the use of sports brassieres has proved effective for the relief of mastalgia, they are comfortable, and they are well tolerated by most women.

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