



## Updated Study of the Aetiopathogenesis and Clinical Management of Mastalgia

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### Abstract

**Introduction:** Breast pain or Mastalgia is a common and disturbing clinical disorder in females. Due to the complex and multiple aetiological factors, and different modalities of treatment, it poses a challenging problem to the surgeons.

**Methods:** Study of the aetiologies associated and treatment modality effective in treatment of 450 female patients of Breast pain, attending surgical O.P.D. of Nalanda Medical College, Patna, in the period July 14 – May 17, was done.

**Results:** 450 patients with a median age of 35 (range 19-51 years) were observed. The aetiologies associated, investigations and satisfactory treatment modalities were studied. The incidence of patients needing hormone replacement therapy with Danazol, was noted.

**Conclusion:** 140 patients (31.1%) had a direct relation with menstrual cycle. They got relief in pregnancy and after menopause (Cyclical Mastalgia). Reassurance with periodic breast support and NSAIDS (topical / oral) got them relief. 91 patients (20.2%) having fibroadenoma(s) benefitted by surgical removal, histology exam of the nodule(s), followed by reassurance and Analgesics. 290 patients (64.4%) needed hormone replacement therapy with Danazol, for a period of 4-6 months. They included some patients of cyclical mastalgia as well as those having nodules.

**Keywords:** Mastalgia, F.N.A.C., Birads score, Ultrasonomammography, Danazol.

### Introduction

Breast pain or Mastalgia is a common complaint of many female patients attending surgical O.P.D. Faulty self-examination in granular breast(s) leads them to believe that their breast (s) have nodule(s). Due to the anxiety because of the increasing awareness about breast cancer, they become fearful about the beginning of malignancy. If fibroadenomatous nodule (s) are present, the mastalgia is more exaggerated because of the anxiety and mental agony.

Complaints of radiation of this pain to whole chest, head, upper limb, abdomen and even the whole body is common. Many patients having bilateral mastalgia have direct relation to the menstrual cycle (Cyclical Mastalgia). They usually get relieved on pregnancy or after menopause. Patients with pain in single breast usually have it in a single quadrant of the breast. Here the cause of mastalgia is chostochondritis, nerve root pain, spondylitis, or osteoporosis of ribs.

Thus managing patients of mastalgia needs a pragmatic approach, which comprises of:-

- (i) Careful clinical examination.
- (ii) Specific investigations – Ultrasono mammography to find out the Birads score.
- (iii) F.N.A.C. of any nodule(s) or lump.
- (iv) Histopathological examination of surgically removed nodule.
- (v) Tumor marker.

Once malignancy is ruled out, patients of Mastalgia should be managed by Explicit Reassurance, Breast Supporting undergarments (Sports Bra) and Analgesics (NSAID - oral / topical). Breast pain with fibroadenoma, is benefitted by surgical removal and histopath exam of the excised nodule, followed by analgesics. Many patients of Mastalgia are not relieved by the above measures and need hormonal therapy. The basis of this is that the level of oestrogen/ progesterone/ prolactin in these patients are not in proper balance. Thus they need hormonal therapy. 4-6 months of Hormone replacement therapy is usually done by.

- i. Topical / oral Progesterone administration.
- ii. Anti-oestrogen agents (a) Centchroman (Onmeloxifene) marketed as Saheli (b) Tamoxifen
- iii. Testosterone derivatives- Danazol, an antigonadotrophic agent, is a testosterone

derivative having mild androgenic effect. Hair growth, weight gain and menstrual irregularities are its side effects.

### Patients & Methods

This was a randomized study done on 450 patients attending surgical O.P.D. in Nalanda Medical College Hospital, Patna from July-14 to May-17 who had complaints of breast pain. Careful clinical examination, Ultrasonomammography for Birads score, FNAC of any lump, Tumor marker for Ca breast and Histopathological exam of nodule removed surgically, was done.

This study was done to find out:-

- i. Incidence of cyclical Mastalgia (having relation with Mens.)
- ii. Incidence of getting Birads score >2
- iii. Incidence of patients response to the above methods of treatment & patients needing Danazol treatment.

### Result

In this study of 450 patient of Mastalgia, the different aetiological factors and the effective modalities of treatment were compared.

140 patients (31%) were found to be having a direct relation with menstrual cycle (cyclical mastalgia) 91 patients (20.2%) were found to be having fibroadenomatous nodules.

**Table -1** Showing the Incidence of the different Aetiological factors in Mastalgia.

Aetiological Factors	No. of Patents	% Incidence
Mastalgia directly related to Menstrual cycle (Cyclical M.)	140	31.1%
Birads score >2	56	12.4%
Fibroadmona nodule(s)	91	20.2%

Of these 91 patients, 72 patients (79%) had a single nodule.

Of these 91 patients, 14 (15.3%) had multiple nodules but all the nodules were in a single breast.

Of these 91 patients, 5 (5.5%) had multiple nodules involving both breasts.

**Table -2** Showing the Incidence of single / multiple Fibroadmona and the involvement of single or both breast.

No. of Nodule	No. of Patents	% Incidence
Single Nodule	72	79.1%
Multiple nodules (Single Breast)	14	14.3%
Multiple nodules (Both Breasts)	05	5.5%

2 cases presented with lump which was clinically malignant on a FNAC. Rural background and poverty were the cause for the delay.

Effective management of mastalgia was found to be done by Reassurance, breast support,

Analgesics (NSAID-topical/oral). Cases of severe mastalgia needed Danazol treatment for 4-6 months. Anti-oestrogen drugs were not used in this study.

**Table -3 :** Showing the Incidence of patient needing Hormone Replacement Therapy.

Hormone Replacement therapy	No. of Patents	% Incidence
Danazol (Testosterone derivative)	290	64.4%
Centchroman (Anti-oestrogen)	Not Used	NA

### Discussion

This study led us to the observation that amongst patients of Mastalgia, 31% of the patients were found to be having a direct relation of pain and its intensity with their menstrual cycle. These patients were painless in pregnancy, in between periods and after menopause<sup>(8)</sup>. 91 patients (20.2%) of these patients had one or more fibroadenomatous nodules<sup>(7)</sup>. The Birads score was above 2 only in 12.4% of the patients having Mastalgia, who underwent ultrasonomamography.

Among the 91 patients having fibroadenoma nodule(s), most of them had a single nodule (79%) (2). 19 of these 91 patients (20.8%) had multiple nodules. Of these 19 patients having multiple nodules 14 patients (14.3%) had nodules involving a single breast. 5 patients (5.5%) of these 19, had multiple nodules involving both breast.

Regarding treatment, 290 patients in total (64.4%) required hormone replacement therapy with Danazol<sup>(6)</sup>. Anti-oestrogen (Centchroman) was not used. Rest 160 patient responded to reassurance, Breast support and Analgesics only.

### Conclusion

Patients of Mastalgia require a careful chemical examination, thorough investigations and surgical removal of diagnosed fibroadenoma nodule(s), Sympathetic reassurance, Supportive under garments (Sports bra), Analgesics (NSAID-topical/oral) in good enough in about 35% of patients. 64.4% of patients needed hormone replacement therapy with Danazol for effective

treatment, for a period of 4-6 months. Centchroman (anti-oestrogen) was not used in this study. Primrose oil was rarely helpful.

### Reference

1. Smith R L, Pruthi S, Fitzpatrick LA (2004) – Evaluation and Management of Breast Pain Mayo clinic Proc. 79(3) 353-372.
2. Mansel R E, Webster DJT, Sweetland HM (2009) – Brest Pain and nodularity, Benign disorders and diseases of the breast 3<sup>rd</sup> edn., Saunders Elsevier, Philadelphia, pp 107-138
3. Shukla H S, Kumar S (1989) – Part II Benign Breast disorders in India, World J Sury 13(6) 746-749.
4. Gateley CA, Mansel RE – Management of painful and nodular breast Br. Med. Bull. 47(2) 284-294.
5. Wisbey JR, Kumar S, Mansel RE, Preece PE, Pye JK, Hughes LE (1985) Natural History of Breast Pain Lancet, 672-274.
6. Asch RH, Greenblatt RB (1971) – The use of Danazol in management of Benigen Breast disorder Am.J.Obst. Gyne 127 pp.130-134.
7. Srivastava A, Dhar A (2007) – Role of Centchroman in regression of Mastalgia and fibroadenoma, World J. Surg. 31 pp.1178-1184.
8. Kataria K, Dhar A et al : Review of the current understanding and management of Mastalgia: Ind J Sug Vol 73(3) pp 217-222.