

## Experience with Keynote Prescribing in Case of Ductal Ectasia with Periductal Mastitis- A Case Report

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### Abstract:

Duct ectasia (DE) and peri ductal mastitis (PDM) are the most common benign breast conditions. Empiric antibiotic therapy and wide surgical excision are the main stay of treatment in the field modern medicine. However, the condition is still subject to recur even after sensitive antibiotic therapy and excision surgery. Here, alternative system of medicine especially Homoeopathy plays an important role in combating such kind of suffering. Case reports of DE with PDM in the medical literature are likewise scant. This study therefore was aimed to report the case study based on keynote in a woman suffering from DE with PDM. A 32 years lady came with fever, pain, redness and swelling in the peri-areolar region for 4-5 days and soft swelling in right upper outer quadrant of breast for 2 months. USG of breast showed mastitis. Based on keynote, *Arnica montana* was prescribed in centesimal scale. Normal study of breast was suggested by USG. No further recurrence was noted for another 3 months follow up. Possible causal attribution of changes was explicitly depicted by Naranjo Criteria. It shows the positive role of homoeopathic treatment in the regression of DE with PDM. Furthermore, clinical trial is suggested to ascertain the result obtained in the present study.

**Keywords:** *Arnica montana*, Ductal ectasia, Keynote prescribing, Naranjo Criteria, Periductal mastitis.

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**Introduction:**

Duct ectasia/Periductal mastitis is a dilatation of the breast ducts, which is often associated with periductal inflammation. The pathogenesis is obscure and almost certainly not uniform in all cases.<sup>[1]</sup> The classical concept as enunciated by Haagensen and Ewing considers dilatation in one or more of the larger lactiferous ducts under hormonal influence as a primary event,<sup>[2]</sup> which fill with a stagnant brown or green secretion. This may discharge. In some cases, a chronic indurated mass forms beneath the areola, which mimics a carcinoma. Fibrosis eventually develops, which may cause slit-like nipple retraction.<sup>[1]</sup> Several factors have been found associated including smoking, obesity, and diabetes mellitus. However, these risk factors are identified based on small case series reports and have not been confirmed epidemiologically.<sup>[3],[4]</sup> A marked association between recurrent periductal inflammation and smoking has been demonstrated.<sup>[1]</sup>

Nipple discharge (of any color), a tender palpable subareolar mass, abscess, mammary duct fistula and/or nipple retraction are the most common symptoms. Antibiotic therapy may be tried. However, surgery is often the only option likely to bring about cure of this notoriously difficult condition;<sup>[1],[5]</sup> this consists of excision of all the major ducts (Hadfield's operation). It is particularly important to shave the back of the nipple to ensure that all terminal ducts are removed. Failure to do so will lead to recurrence.<sup>[1]</sup>

In the recent years, the morbidity rate of DE /PDM has risen rapidly. Moreover, in several studies, mammary ductal ectasia has been found to be responsible for 5-25% of all symptomatic breast conditions.<sup>[6-7]</sup> The recurrence rate was reported from 4.3% to 28%.<sup>[5]</sup> In this case study, the homoeopathic medicine *Arnica montana* based on striking, characteristics features in centesimal scale served a vital role to overcome the infamous disease condition.

**Case Report:**

A 32 years moderate built, fair complexioned lady came to the OPD presented with fever, pain, redness and swelling in peri-areolar region for 4-5 days and soft swelling in right upper quadrant of breast for 2 months. A detailed case history was taken, and prescription was done on the basis of keynote feature of the medicine.

In past history, measles at early childhood and Jaundice a year back (treated allopathically). Injury in the right breast 4 months before while travelling and taken Analgesic for pain, herself. In family history, mother was having Type II Diabetes mellitus (T2DM) and Hypertension (HTN). In personal history, she was married for 4 years and having single child. Patient is taking OCPs for no further issue and had addiction of chewing betel nut. In generals, the patient was nervous and anxious about her disease. The appetite was good with desire for fish and sweet things. She drank about 2-3 liters of water per day and tongue was dry. Sleep was sound with no particular dream. Bowel movement was regular, and the character of stool was semisolid. Thermal reaction was hot. In menstrual

history- The age of menarche was 12 years. Her menses was regular, and character of menses was reddish with small clots, and non-offensive.

**On examination-** Soft swelling in upper outer quadrant of right breast. Redness<sup>++</sup>, soreness<sup>+++</sup> and tenderness<sup>+++</sup> in peri-areolar region with a fear of being touched. Temperature was recorded 100.2<sup>0</sup>F and USG of breast revealed mastitis. (Figure 1)

A Numerical Rating Scale (Figure-3) based on 11 points (0–10) has been used for the assessment of pain. <sup>[8]</sup> This scale assigned the value of 0 to the absence of pain and the value of 10 to the worst pain imaginable. Patient was asked to rate his severity of pain on the Numerical Rating Scale (NRS). On the day of first consultation NRS Score was 9.

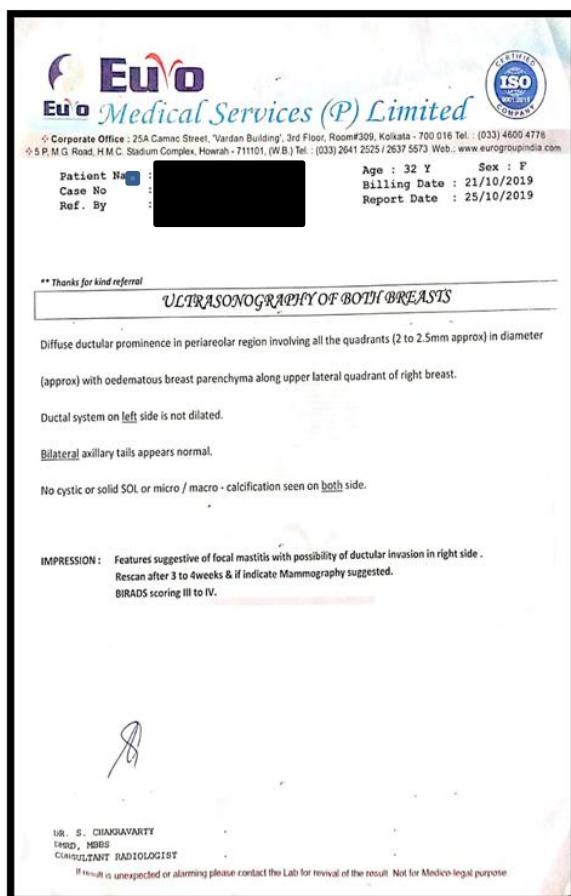


Figure-1 USG of both breast (25/10/19)

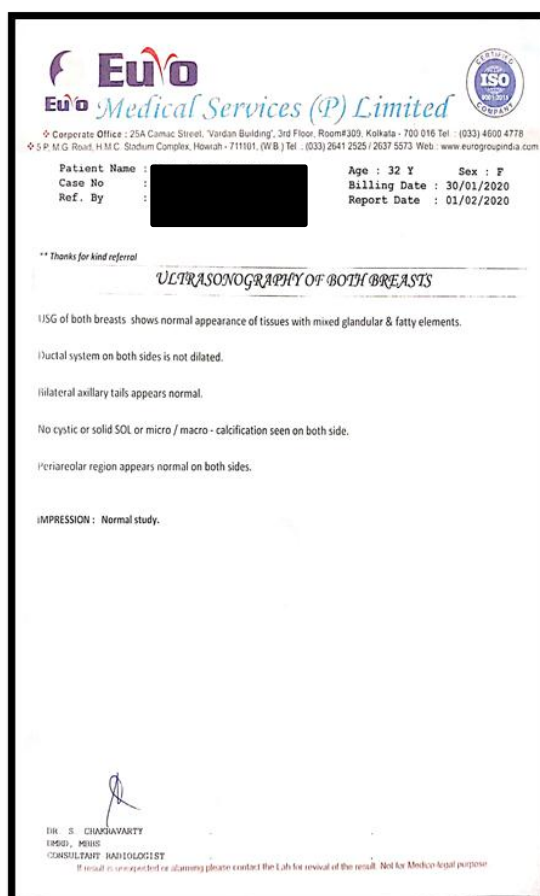


Figure-2 USG of both breast (01/02/20)

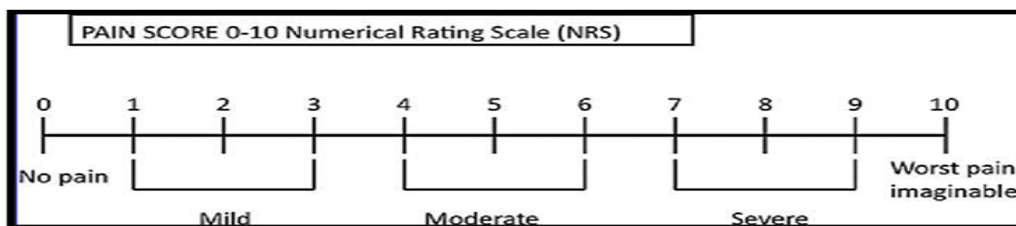


Figure -3 Numerical Rating Scale (NRS)

### Methodology/ Treatment given:

The medicine was selected on the basis of the most striking (characteristics) features of the case that is the past history of injury in the right breast, soreness and tenderness with great fear of being touched, nervousness which are the keynote features of *Arnica montana*.<sup>[9]</sup> As per Dr. J. T. Kent, 200 potency is the low potency with which treatment can be best commenced.<sup>[10]</sup>

From the above discussion regarding the key features and potency selection, *Arnica montana* 200/2 doses were prescribed in

aqua dist. on the day of consultation (25/10/2019). Patient was advised to take the medicine in the early morning on an empty stomach for two consecutive days followed by placebo. She was also asked for complete bed rest and regular follow-up. (Table 1)

The final outcome and possible causal attribution of the changes in this case were assessed using the “Modified Naranjo Criteria” as proposed by HPUS Clinical data Working Group (December 2015).<sup>[11]</sup> (Table 2)

Table 1 Follow-up sheet:

Date	Complaints	NRS Score	Intervention
27/10/2019	No Fever Pain, redness and swelling- slightly decreased Soft swelling- same as it was	8	Placebo
01/11/2019	Pain, redness and swelling- decreased (↓) Soft swelling- slightly decreased	7	Placebo
22/11/2019	Pain, redness and swelling-decreased (↓↓) Soft swelling - decreased (↓)	6	Placebo
13/12/2019	Pain, redness and swelling -decreased (↓↓↓) Soft swelling- decreased (↓↓)	4	Placebo
03/01/2020	Slight Pain Soft swelling- slightly palpable	2	Placebo
24/01/2020	No pain No swelling- palpable	0	Placebo

The patient was asked to do USG of both breast and on 30/01/2020 USG (Figure 2) revealed normal study of breast. Patient was followed-up for another 3 months to rule out any complication or relapse.

**Table 2 Assessment by Modified Naranjo Criteria:**

S.N.	Item	Yes	No	Not sure /N/A
1.	Was there an improvement in the main symptom or condition for which the homoeopathic medicine was prescribed?	+2		
2.	Did the clinical improvement occur within a plausible time frame relative to the drug intake?	+1		
3.	Was there an initial aggravation of symptom? (need to define in glossary)		0	
4	Did the effect encompass more than the main symptom or condition, i.e., were other symptoms ultimately improved or changed?	+1		
5	Did overall wellbeing improve? (suggest using validated scale)	+1		
6. (A)	Direction of cure: did some symptoms improve in the opposite order of the development of symptoms of the disease?	+1		
6. (B)	Direction of cure: did at least two of the following aspects apply to the order of improvement of symptoms: - from organs of more importance to those of less importance - from deeper to more superficial aspects of the individual - from the top downwards		0	
7.	Did “old symptoms” (defined as non-seasonal and non-cyclical symptoms that were previously thought to have resolved) reappear temporarily during the course of improvement?		0	

<b>8.</b>	Are there alternate causes (other than the medicine) that – with a high probability – could have caused the improvement? (consider known course of disease, other forms of treatment, and other clinically relevant interventions)		+1	
<b>9.</b>	Was the health improvement confirmed by any objective evidence? (e.g., lab test, clinical observation, etc.)	+2		
<b>10.</b>	Did repeat dosing, if conducted, create similar clinical improvement?			0

The total score of outcomes in this case was 9 which was close to the maximum score of 13 as per Modified Naranjo Criteria.



**Result and Discussion:**

This case report describes the uniqueness of keynote prescribing in homoeopathy in a case of DE with PDM. The remedy was selected on the basis of keynote features and potency and dose was followed on the basis of homoeopathic principle. A marked improvement of the symptoms was noted gradually in subsequent visits and marked resolution after the complete course of treatment. Modified Naranjo criteria have been applied for assessment of causal attribution of homoeopathic medicine which showed the positive role of keynote prescribing in the treatment of DE with PDM in a young woman. No complication or recurrence was observed for another 3 months follow up.

For homoeopathic physician, when a remedy matches the entire pathobiography of a person can cure a disease. As per Dr. Stuart Close, in both the patient and remedy to be selected, there is and must be a peculiar combination of symptoms, a characteristic or keynote. Strike that and all the others are easily touched, attuned or sounded. There is only one keynote to any piece of music, however, complicated, and that note governs all the others in the various parts, no matter how many variations, trills accompaniments, etc.<sup>[12]</sup>

According to Dr. H. N. Guernsey, when a characteristic symptom or key-note presents itself in a given case, it means that the whole case is to be studied with reference to the remedy which correspondingly has that symptom or condition.<sup>[13]</sup> In this case report we could verify the logic and practical application of keynote methodology. The keynote is simply the predominating symptoms or features which directs attention to the

totality. The largest case control study (85 patients) on the risk factors for chronic mastitis including duct ectasia and periductal mastitis showed higher association with increased oral contraceptive pill usage which is corroborated in this case report.<sup>[14]</sup> Demographical characteristics like age, age of menarche, parity of the presented patient support the finding of the study.<sup>[15]</sup>

**Limitation of the study:** As this is a case report similar study may be carried out on a large sample size.

**Conclusion:**

Medicine, selected on the basis of keynote features has the capability of providing immediate pain relief and to cure the patient at the deeper level which leads to the permanent restoration of health. The case report demonstrates that keynote prescribing is novel and confirms its efficacy as a way to use Materia Medica guided by homoeopathic philosophy to add to our storehouse of evidence-based medicine, the need of the hour.

**Consent:**

The study was verbally explained to the patient, and written consent was obtained. For the ethical purpose, if any poor prognosis were suspected, then she would be referred to a regional center as per government norms.

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