

A COMPARATIVE STUDY OF THE EFFICACY OF AN ALLOPATHIC AND AN AYURVEDIC GALACTOGOGUE

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SUMMARY

Lactational failure has been treated with many drugs. In this study a herbal drug (Lactare), metochlorpropamide and a placebo were used in 60 post-partum patients with complete or partial lactational failure. The following criteria were used to confirm the efficacy of the drugs used—

- Increase in draught reflex
- Tingling sensation in the breast
- Increase in baby weight
- Decrease in bottle feeds
- Changes in level of serum prolactin

It was found that the herbal drug (Lactare) was more effective as compared to metachlorpropamide and the placebo.

Introduction

The psychological aspects and importance of breast feeding are incalculable, but on the more physical plane, human breast milk is the ideal food for the neonate which no substitute can wholly replace.

A large number of galactogogues have been tried with varying degree of success in cases of lactational failure. However, till date, there is scarcely any literature published which scientifically correlates the effectiveness of any galactogogues. In view of this, we at the Nowrosjee Wadia Maternity Hospital decided to study 60 cases of lactational failure who were

treated with two different galactogogues and a placebo.

Material and Methods

This study was conducted at the Nowrosjee Wadia Maternity Hospital on 60 post-partum patients. Patients with either complete or partial lactational failure i.e. those with absent or inadequate lactation, three or more days after a full term delivery were selected. Any apparent psychological dysfunction was ruled out and the patients were adequately motivated for treatment and follow-up.

The patients were divided into three groups of 20 patients each, and each group was given of the following drugs for 10 days on a double blind basis:

(a) The first group was given a herbal drug (Lactare) containing:

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- Asparagus racemosus .. 200 mg
 - Withania somnifera .. 100 mg
 - Glycyrrhiza glabra .. 50 mg
 - Trigonella foenum graceum .. 20 mg
 - Allium sativum .. 10 mg
- in the dosage of 2 tablets thrice daily.

(b) The second group was given metochlorpropamide (10 mg)—1 tablet thrice daily.

(c) The third group was given a placebo—1 tablet twice daily.

Three ml of blood was collected before and after 10 days of treatment for serum prolactin assays.

The following criteria were used to evaluate the efficacy of the drugs:

- (a) Subjective—Increase in the draught reflex
 - Tingling sensation in the breast.
- (b) Objective—Increase in baby weight
 - Decrease in bottle feeds
 - Changes in level of serum prolactin.

Results

Table I shows that out of the 60 cases studied, 42 had partial lactational failure and 18 had complete failure.

TABLE I

Drug	Number	Partial %	Complete %
Herbal	20	14-70	6-30
Metochlorpropamide	20	13-64	7-35
Placebo	20	15-75	5-25
Total	60	42	18

Table II shows that an increased draught reflex was seen in 70% cases on the herbal drug, 50% cases on metochlorpropamide and only 40% on placebo.

TABLE II
Draught reflex

Drug	No change %	Increase %
Herbal	6-30	14-70
Metochlorpropamide	10-50	10-50
Placebo	12-60	8-40

Table III shows that the baby weight increased in the range of 100-1000 gms in 80% cases in the first group as compared to 65% in the second and 35% in the third group.

TABLE III
Baby Weight

Drug	Decrease %	No change %	Increase	
			100-500 gms %	500-1000 gms %
Herbal	2-10	2-10	10-59	6-30
Metochlorpropamide	3-15	4-20	11-55	2-10
Placebo	5-25	8-40	7-35	0

As shown in Table IV 80% cases in the first group, 55% in the second and 40% in the third group showed a decrease in bottle feeds.

TABLE IV
Bottle feeds

Drug	No change %	Decrease %
Herbal	4-20	16-80
Metochlorpropamide	7-35	13-55
Placebo	12-60	8-40

Serum prolactin levels give an objective assessment of the improvement in the draught reflex. Therefore, the efficacy of any galactagogue can be best judged by an increase in serum prolactin levels after treatment.

There was an increase of serum prolactin levels in 70% cases in the first group, 50% in the second and 25% in the third group.

TABLE V
Serum Prolactin

Drug	decrease %	Same %	Increase	
			5-50 ng/ml %	50-100 ng/ml %
Herbal	2-10	4-20	8-40	6-30
Metochlorpropamide	4-20	6-30	6-30	4-20
Placebo	5-25	10-50	3-15	2-10

Discussion

A review of the reasons for abandoning breast feeding in the first three months has been made by Hytten *et al*

(1958) who studied a sample of 106 primiparae in Aberdeen-74 gave up by three months and all but 3 experienced one or more difficulties in breast feeding. The commonest complaints were of excessive crying of the baby, maternal fatigue, breast and nipple troubles and inadequate milk.

To increase breast secretion, many pharmacological and conservative techniques have been tried—Waller in 1946 in Woolwich managed to obtain a successful lactation rate by utilising mainly manual expression before and after delivery and Blaikely *et al* (1953) following Waller's principles managed to double the above lactation rate.

In the current study two drugs and a placebo have been used.

From times immemorial herbal preparations have been used in India in lactational failure, but their exact mode of action is unknown. To study the effectiveness of such preparations one such

herbal drug (Lactare) was compared with metochlorpropamide.

Metochlorpropamide is a known and proven galactagogue which acts by in-

creasing the milk let down and thus prevents and decreases breast engorgement.

A placebo was also used to eliminate the psychological overlay.

In this study the herbal preparation was significantly more effective as compared to metochlorpropamide and the placebo.

No untoward side effects were noticed in the study.

References

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