# COLOSTRUM FEEDING: MYTHS AND REALITIES

V. S. TODDYWALLA • N. NIRBHAVANE • J. K. KANOJIA • S. B. PATEL S. S. BETRABET • S. DATTE • L. N. GAUR • B. N. SAXENA

### **SUMMARY**

Colostrum, nature's own vaccine against infantile infections is wasted thorough superstitions. The study envisages how the obstetrician, the maternity-ward staff, the media, Government and women's organisations can help in dispelling this myth.

### INTRODUCTION

The composition of breast milk varies at different stages after birth to suit the needs of the infant. The three different stages are: Colostrum, which is secreted during the first three days, the Transitional milk, which is secreted during the following two weeks and the Mature milk, which is secreted thereafter. While it is universally accepted that breast milk is the best for the infant, a lot of confusion exists in India regarding the feeding of the First Phase of Breast Milk - The Colostrum (Jelliffe et al 1978).

In order to guage the perceptions and practices regarding Colostrum - Feeding

I. R. R., Bombay and I. C. M. R., Delhi. Accepted for Publication on 29.9.94

amongst urban Indian women we conducted a survey study as:

# SUBJECTS AND METHODS

Our study subjects were 2000 parous women aged 32 ± 5 yrs coming from different walks of life but residing in the Metropolis of Bombay. Care was taken to include a proportionate number of women from the minority communities (muslims and christians), house-wives, self-employed and working women, ill, semi-literates and educated. Besides this, interviews were also conducted in several private maternity homes & public hospitals with women who had recently delivered their infants and hence were still hospitalised. This gave us an in-slight into the practices prevalent in

these places.

#### RESULTS

Table I, indicates the perceptions and hence the practices followed regarding colostrum feeding. 65.8% of the illiterates, 43.5% of the semi-literates, 34% of high school graduates and 12.4% of college graduates, deprived their infants completely from the benifits of colostrum feeding, by offering the initial feeds after the third day of delivery.

Table II indicates that the level of education and acceptance of Colostrum as a beneficial entity go hand in hand. (20.8% for the illiterates as against 87.7% for the highly educated). Except in the case of the educated (24.8%) the source of this information was solely through the medical personnel. Also the awareness regarding the immunological benefits of colostrum were more known to the educated.

Table III, indicates that in almost all the cases where colostrum was considered bad and therefore not given, it was either the family who adviced against it or the deep-seated belief that it was bad, that detered the mother from feeding her infant.

The main reasons offered by all for not feeding were: (a) it is thick and hence difficult for the new born to digest, (b) it is yellow, because it is old milk (remained in the breast since pregnancy) hence it will cause diarrhea in the newborn.

#### DISCUSSION

It is indeed a pity that through ignorance and general apathy on the part

of the authorities that Nature's - Vaccine against infantile infections is discarded. This has special significance in a country like ours where infant morbidity and mortality is very high.

Our inter-action with the mothers in Private Nursing Homes indicated that though all the mothers were 'Ordered' to feed their infants with the first milk, very few did. One of the main excuses cited by the mothers was the milk was insufficient. In reality a vast majority were discarding whatever milk (colostrum) they produced and were feeding their infants with either top milk or glucose/honey water). The surprising factor was no vigilance was kept on these mothers, nor was time taken to explain to them and their family the benefits of colostrum.

We were pleasantly surprised with the few Public Hospitals we visited. Here too though the mothers were only 'Ordered' to feed their infants with the first milk, the enforcement was rather strict. Strict vigil in the form of frequent surprise rounds and confiscating of feeding bottles, top milk, glucose and honey water etc. resulted in the mothers to offering their infants colostrum in order to keep them from crying.

India, with its high infant morbidity and mortality can ill-afford to waste Natures' Passport to Infants' Health through sheer ignorance. It is therefore appalling to think that if this is the prevalent practice in one of India's Premier city, what would be happening in the rural scene? Hence it becomes obligatory on the part of the medical profession and the authorities to pool in their mites as -

Table I

Colostrum Feeding - Perceptions

|   |                      | Educational status of 2000 study women | f 2000 study won | nen              |
|---|----------------------|--|------------------|------------------|
| Variables   | Illiterates<br>n=565 | Primary School<br>n=396                | High School      | College Graduate |
| How Soon After Delivery Should A Newborn Be Put To The Breast ? | uld A Newborn Bo     | e Put To The Breast ?                  |                  |                  |
| As soon as the mother is comfortable                            | 0.4%(2)              | 1.5%(6)                                | 3.1%(21)         | 4.0(14)          |
| After a few hours   | 4.7%(26)             | 10.0%(40)                              | 16.0%(110)       | 23.0(81)         |
| On the same day   | 5.0%(28)             | 9.9%(39)                               | 17.1%(118)       | 23.0(81)         |
| On the next day   | 24.1%(136)           | 35.1%(139)                             | 30.2%(208)       | 37.6(44)         |
| After three or more days  | 65.8%(373)           | 43.5%(172)                             | 33.6%(230)       | 12.4(44)         |

Table II
Colostrum Feeding - Perceptions

| Variablas  |                      | Educational status of 2000 study women | f 2000 study won     | nen                        |
|--|----------------------|--|----------------------|----------------------------|
| Valiables  | Illiterates<br>n=565 | Primary School<br>n=396                | High School<br>n=687 | College Graduates<br>n=352 |
|  |                      |  |                      |                            |
| Is Colostrum - Feeding Good For The Infant ?                   | r The Infant?        |  | **                   |                            |
| Yes  | 20.8%(117)           | 40.9%(162)                             | 60.2%(413)           | 87.7%(309)                 |
| Why Do Your Think Colostrum - Feeding Is Good For The Infant ? | - Feeding Is Go      | ood For The Infant?                    |                      |                            |
| Immunity against infection                                     | 25.6%(30)            | 36.8%(60)                              | 43.3%(179)           | 62.4%(193)                 |
| Very nutritious  | 63.9%(75)            | 56.3%(91)                              | 50.5%(208)           | 35.3%(109)                 |
| Gift from God  | 10.5%(12)            | 6.9%(11)                               | 6.2%(26)             | 2.3%(7)                    |
| Who Told Your That Colostrum - Feeding Is Good For The Infant  | - Feeding Is Go      | ood For The Infant?                    |                      |                            |
| Medical Personnel  | 94.0%(110)           | 90.5%(147)                             | 84.2%(348)           | 67.4%(208)                 |
| Family   | 2.5%(3)              | 5.0%(8)                                | 6.2%(26)             | 6.5%(20)                   |
| Friends  | 0.0%(0)              | 2.0%(30)                               | 1.9%(8)              | 0.3%(1)                    |
| Media  | 0.9%(1)              | 0.6%(10)                               | 6.7%(27)             | 24.8%(77)                  |
| No one   | 2.6%(30)             | 1.9%(3)                                | 1.0%(4)              | 1.0%(3)                    |

Table III
Colostrum Feeding - Perceptions

| Joe of design   |  | Educational status of 2000 study women | f 2000 study wom     | len                       |
|---|--|--|----------------------|---------------------------|
| Variables   | Illiterates<br>n=565                       | Primary School<br>n=396                | High School<br>n=687 | College Graduate<br>n=352 |
| Is Colostrum - Feeding Good For The Infant ?                    | od For The Infant?                         | Tanana                                 |                      |                           |
| No  | 79.2%(448)                                 | 59.1%(234)                             | 39.8%(274)           | 12.3%(43)                 |
| Why Do Your Think Colos   | Colostrum - Feeding Is Bad For The Infant? | 1 For The Infant?                      |                      |                           |
| Accepted since ages   | 36.4%(163)                                 | 37.6%(88)                              | 38.2%(105)           | 27.5%(12)                 |
| Bad for digestion heavy   | 36.6%(164)                                 | 41.8%(98)                              | 49.4%(135)           | 55.0%(24)                 |
| Bad for digestion old   | 27.0%(121)                                 | 20.6%(48)                              | 12.4%(34)            | 17.5%(7)                  |
| Who Informed You That Colostrum - Feeding Is Bad For The Infant | Colostrum - Feeding Is                     | Bad For The Infant ?                   |                      |                           |
| Medical Personnel   | 6.2%(28)                                   | 9,8%(23)                               | 3.6%(11)             | 0.0%(NiI)                 |
| Family  | 71.0%(318)                                 | 73.2(171)                              | 66.9%(183)           | 46.7%(20)                 |
| Friends   | 1.2%(5)                                    | 0.0%(Nil)                              | 2.7%(7)              | 0.0%(NiI)                 |
| Media   | 0.0%(Nil)                                  | 0.0%(NiI)                              | 0.0%(Nil)            | 0.0%(NH)                  |
| No One - well known   | 21 6%(97)                                  | 17 0%(40)                              | 26 896(73)           | (20%) 23                  |

Obstetrician - should find to explain to the young mother (and her mother/mother-in-law) that colostrum contains very high levels of IgA and IgM which protects the infant against common infantile infections especially of the gastro-intestinal and respiratory tract while its own immune system is developing (1). Also the very small quantity of colostrum produced is enough to meet the nutritional needs of the new-born (Singh M 1991).

Maternity-Ward Nursing Staff: should be knowledgeable, friendly but strict. They should explain to the young mother (and her mother/mother-in-law) the benefits of colostrum and enforce its feeding. In case their advice is not followed, strictly prohibit the use of top milk, glucose or honey water feeds in their wards.

Public communication media: can play a very important role. T.V. documentaries, colourful advertisements with simple messages in new papers and womens' magazines both in English and the local languages could help in dispelling the myth and propogating the benefits of colostrum feeding.

Government and Women's Organisations: should play a larger role in disbursing information through in-

formation campaigns for community health workers, primary, secondary and adult literacy teachers. Information on family planning, breast and colostrum feeding should also be provided to high school girls.

Family: in feeding her infant, the young inexperienced mother will do what she is told is the best for her new born infant. For that she relies solely on the advice given by her elderly more experienced relatives (mother/mother-in-law). Hence any educative program, be it through the medical personnel or media, must necessarily include the mother/mother-in-law for its success!

It is education alone, on the real benefits of Nature's Own Vaccine - The Colostrum, that could help clear the myth and make colostrum acceptable to the masses.

This factor could greatly help India in making its Infant and Child Health Care Programme a sure success.

## REFERENCES

 Jelliffe D.B. and Jelliffe E.F.P. Human milk in the modern world. 1978, 84, Oxford University Press, Oxford.

2. Singh M: Chronicle of the National Neonatology Forum. Vol. 1, No. 1.: Jan-March