

ORIGINAL ARTICLE

**Prevalence of Prelacteal Feeding Practice In Wardha And The Effect Of Antenatal Education on it**

*Tushar Jagzape, Amol Lohkare, Jayant Vagha, Bhavana B. Lakhkar*

**Abstract**

The study aims at determining the prevalence of prelacteal feed in patients presenting at AVBRH, to study the effect of breast feeding education and to see whether sex of child has any influence over it. Mothers with babies below 6 months who presented to outpatient of AVBRH were interrogated about their place of delivery, feeding education during antenatal period, whether they gave prelacteal feed and if yes, what feed was given. Details of baby and mothers responses were noted. One hundred and eighty mothers were included in study. Total of 82 (43.2%) babies were given prelacteal feeds of which 63% were females. The practice of prelacteal feed was compared in babies born in AVBRH and outside as feeding education is given in our hospital which is not so commonly in given in other hospitals. Among those given prelacteal feeds, only 26.8% were inborn whereas the rest were outborn babies. Also female babies received prelacteal feed more as compared to boys. Thus feeding education especially during antenatal period can reduce the prevalence of prelacteal feeds.

**Introduction**

In recent years importance of breast-feeding has tremendously increased due to its advantages to both mother and baby. The hospitals, which promote breast-feeding, are recognized as Baby Friendly Hospitals and AVBRH, Sawangi is one of them. Ten steps of successful lactation have been given by WHO and UNICEF in their joint statement of 1988 (1). All baby friendly hospitals are supposed to follow these steps. In AVBRH mother's education about breast-feeding starts during antenatal period and is executed by Medical and Nursing students. These students attend antenatal clinic and are trained to provide structured feeding education. Following advices are given: Breast milk is best for your baby. It is best started within ½ an hour of birth as it gives a protective umbrella to baby right at birth. Any thing like honey, sugar water, milk or even warm water given before breast milk can harm the baby as it can cause infection specially diarrhea. Baby should be exclusively breast fed till 6 months of life till then not even water or vitamin drops are needed. Any kind of milk other than breast milk, bottle, nipple, Poopse are harmful to baby. Baby should always be kept in the same bed as mother as it helps in establishing milk formation. Baby should be fed on demand that means whenever she/he cries breast milk should be offered. The practice of giving prelacteal feeds like glucose water, sugar water, honey etc is widely prevalent in rural areas. It is an unhealthy practice as it can cause infection in baby and also delays establishment of lactation. This study was done to see the effect of feeding education to mother on the practice of prelacteal feed to newborns.

**Materials and Methods**

All the mothers with babies less than 6 months who presented to OPD over 3 months period from 1st April 2007 to 31st June 2007 were included in the study. Mothers were asked whether they received breast-feeding advice during antenatal period specially about prelacteal feeding. Then they were asked about their

education and delivery details. If prelacteal feed was given to the baby, it was noted and content of this feed also was asked and response was noted. Babies who were low birth weight or preterm or were admitted in NICU due to some reason after birth were excluded from study. Prevalence of prelacteal feeds in these babies and factors such as mother's education, antenatal feeding advice, baby's gender were analyzed. Statistical method used was SPSS.

**Results**

Total 214 mothers were interrogated. Male: Female babies were 106:108. Prelacteal feed was not given in 56.8% babies. Female babies were given more prelacteal feeds as compared to male babies as depicted in Table 1. The most common prelacteal feed was honey followed by boiled water, Glucose water and sugar water.

**Table 1: Factors associated with prelacteal feeds**

	<b>Babies with no prelacteal feed</b>	<b>Babies with prelacteal feed</b>	<b>Don't know</b>	<b>P value</b>
Males	63 (58.3%)	30 (36.6%)	13 (54.2%)	<0.05
Females	45 (41.7%)	52 (63.4%)	11 (45.8%)	
Inborn babies	89 (82.4%)	22 (26.8%)	12 (35.3%)	<0.05
Outborn babies	19 (17.6%)	50 (73.2%)	22 (64.7%)	
Antenatal feeding education	73 (67.6%)	20 (24.4%)		<0.01
Educated mother	88 (81.4%)	48 (58.5%)		<0.01
Total	108	82		

**Discussion**

The practice of giving prelacteal feed to baby is a traditionally accepted culture in India. In the report of nationwide study by Breast Feeding Promotion Network of India (BPNI), prevalence of prelacteal feed was found to be 49% (2) which is almost same as our study. Other study done in Wardha rural population also found prevalence to 45% (3), in Chandigarh urban slums was 40% (4) and in a study in 1997, it was 100 % in Cuttack mothers (5). However BPNI study was in 2002, Kumar et al study is in 2005 and present study is in 2007 (2,4), it is possible that practices are changing for better, over the years. Regional differences may also account for this change. In our study, about double the number of females as compared to males received prelacteal feed. This may be due to mothers being more eager to give breast milk to boys than girls.

Honey was most common prelacteal feed in our study similar to the BPNI study (2). Other studies also found gur water and cow's milk as common prelacteal feeds(3).

In the present study, 72.35% of inborn babies did not get prelacteal feed which is similar to the Chandigarh study (4). This again emphasizes the importance of health education and also institutional delivery. Once again this study proves benefits of formal education to mother. Similar positive effect of maternal literacy was found in the Chandigarh study.

Study by Diwakar et al (6) scientifically proves that prelacteal feeds are not required as in term AGA babies blood sugar is well maintained without any other feed than breast milk. If we have to discontinue prelacteal feeding practice from society, health education during antenatal care is a must.

Thus to conclude, education of mothers during antenatal care can lead to successful exclusive breast feeding practices.

## References

1. World Health Organization (WHO). Bridging the gaps- The world health report 1995.
2. Gupta A, Gupte YP. Status of infant and young child feeding in 49 districts of India-A national report of quantitative study. Breast Feeding Promotion Network of India (BPNI) 2003.
3. Kishore S, Garg BS. Practice of prelacteal feeding in a rural community. Indian J Public Health. 1999; 43: 144-7.
4. Kumar D, Agarwal N, Swami HM. Socio-demographic correlates of breast-feeding in urban slums of Chandigarh. Indian J Med Sci. 2006; 60: 461-6.
5. Mishra S, Mishra BK, Tandon J. Prelacteal feeding practices of children : a case study on mothers of Cuttack (Orissa). Indian J Preventive & Social Med. 1997; 28: 74-8.
6. Diwakar KK, Sasidhar MV. Plasma glucose levels in term infants who are appropriate size for gestation and exclusively breast fed. Arch Dis Child Fetal Neonatal Ed. 2002; 87: F46-8.

**From:** Department of Pediatrics, Sawargi (M) Wardha, Maharashtra, India

**Address for Correspondence:** Dr Bhavana B. Lakhkar, Professor and HOD, Dept of Pediatrics, Sawangi (m), Wardha, Maharashtra. India

**E-published:** December 2009

---

## ORIGINAL ARTICLE

### Comparison of 99m TC DTPA vs Five methods to estimate Glomerular Filtration rate in children with Renal Transplantation.

*Barbara Ulibarri, Carlos Martinez-Duncker\*, Claudia Camarillo\*, Enrique Omar Guadarrama, Pilar Garcia -Roca\*\*, Ricardo Munoz Arizpe\*\*, Mara Medeiros\*\*.*

#### Abstract

The purpose of the study was to compare the GFR obtained with 99mTc DTPA against five other methods: the GFR measured by 24 hours creatinine clearance (Ccr), and four creatinine-based equations (Schwartz, Counahan-Barrat, Morris and Leger). A descriptive, cross-sectional study was performed in 42 renal transplant children; a 24 hours urine collection was obtained for creatinine clearance. A 99mTc-DTPA renal gammagram was performed the same day. The mean GFR (mL/min/1.73m<sup>2</sup>BSA) obtained with 99mTc-DTPA was 66.9 ±15, whereas by Ccr was 68.7 ±24.4, by Schwartz formula 81.8 ±16, by the Counahan-Barrat equation was 57.6 ±13.6, by Morris equation 60.7 ±14.5 and by Leger equation 73.2 ±18. The predictive performance was evaluated calculating bias as mean prediction error (MPE) and precision (Mean Squared Error, MSE). The Schwartz formula had a MPE of 14.8 and MSE of 9223. The Ccr had a MPE of 1.7 and MSE of 132, Counahan-Barrat MPE -9.4, MSE 3727, Morris -6.28, MSE 1656, Leger -6.2 MSE 2000. Ccr had the lowest bias but is not precise to estimate GFR in renal transplant children. The Morris equation had better predictive performance in renal transplant children than the Schwartz, Counahan-Barrat and Leger equations.

**Keywords:** Glomerular filtration rate, renal transplant, children, Schwartz, GFR measurement

#### Introduction

According to the NKF-K/DOQI guidelines to evalu-

ation, classification and stratification of chronic kidney disease in children and adolescents, the estimates of glomerular filtration rate (GFR) are the best indices of the level of kidney function, and the creatinine clearance using timed urine collections do not improve the estimated GFR over that provided by prediction equations [1]. The GFR estimation in children is made by exogenous markers such as inulin, cystatine C, iothalamate or the radiolabeled 99mTcnetetium diethylenetriamine pentaacetic acid (99mTc-DTPA), accepted as the best methods. Nevertheless, these procedures are invasive, time-consuming and expensive, and not easy to perform in the everyday practice [2]. For these reasons children are more frequently monitored with the GFR prediction equations using serum-creatinine based formulas. The GFR prediction equations are more accurate when GFR is normal (>90mL/min per 1.73 m<sup>2</sup>), otherwise they tend to overestimate the GFR [3]. The majority of the equations used have been initially developed for native kidneys, but a caveat appears when the equation are used to estimate the GFR in transplanted kidneys, since the nephron mass of the graft is never taken into account [4]. There are several studies in adults comparing equations to estimate GFR in renal transplant recipients. In general the equation proposed by the Modification of Diet in Renal Diseases Study, also known as MDRD formula has shown better predictive performance than the Cockcroft-Gault or the Nankivell equations [5-7], but it underestimate the number of patients with declining function [8]. These formulas are not recommended for children.