

Advantages of breast milk feeding for cleft lip and palate infants: comparative study

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ABSTRACT

Background: This study is conducted to record the advantages of breast milk feeding for infants with cleft lip and/or palate and to assess whether education of parents has any role to play in diminishing the expected difficulties associated with feeding techniques.

Materials and methods: The sample of this study consisted of 76 Iraqi infant (45 male, 31 female) with different types of congenital cleft lip and/or palate. They were seen in the college of Dentistry, university of Baghdad .Every infant was provided with feeding baby plate, and breast pump sucker and instruction through video films demonstrate breast feeding to demonstrate breast feeding. Follow up was arranged regarding any possible change in feeding and the health of infants .A detailed questionnaire forms were completed together with their families (the father or the mother or both of them) Observational statistic were then performed.

Results: Using feeding baby plate and providing the proper information regarding different feeding interventions and using expressed milk results in significant improvement when compared with artificial feeding for infants with cleft lip and/or palate.

Conclusion: Cleft lip and /or palate infants suffer from difficulties during breast feeding. However appropriate and proper education and counseling by health care provider to the parents of the infant with cleft lip and /or palate anomalies can reduce problems for the infant with the added advantage of continuing breast feeding.

Key words: Cleft lip and palate, Breast feeding, artificial feeding, Lactation education. (J Bagh Coll Dentistry 2011;23(1):116-119).

INTRODUCTION

It is universally accepted that breast-feeding is the preferred choice for infant feeding. The World Health Organization recommends exclusive breast-feeding for 6 months. No other food for human babies can match breast milk for its nutritional, immunological and infection – protection advantages. Bannister (2001) ⁽¹⁾ states that one of the first experiences in an infant's life is to be fed

Breast milk is absolutely perfect for babies and its benefits are well-documented. Breast milk provides numerous advantages to the infant's general health, growth and development and, at the same time, significantly reduces the risk for numerous acute and chronic diseases. There has been an accumulation of high quality research into the effects of infant feeding. The superiority of breastfeeding and breast milk for infant and maternal health in the developed world ⁽²⁾ has been clearly demonstrated. The following advantages of breastfeeding have been reported: Protection from gastro-enteritis ⁽³⁾ and infections of the middle ear, ⁽⁴⁻⁶⁾ protection for respiratory system ⁽³⁾ Optimum neurological development ⁽⁷⁻⁹⁾ Human milk contains anti-inflammatory properties that prevent irritation of the exposed nasal tissue. Infants with clefts of the palate who are formula-fed have chronic respiratory and ear infections because of irritation from the foreign proteins in formula.

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Babies who drink only mother's milk are healthier, have fewer respiratory infections, and have stronger immune systems.

MATERIALS AND METHODS

The sample of this study consisted of 76 Iraqi infants (45 male, 31 female) with different types of congenital cleft lip and palate. The distribution of the sample is as follows:

Bilateral cleft lip and palate 35 infant (45.05%), unilateral cleft lip and palate 28 infant (36.84%), cleft palate 12 infant (15.78%) They were seen in the college of Dentistry, university of Baghdad. Every infant was evaluated on individual basis and was provided with feeding baby plate (given free of charge), breast pump sucker (given free of charge) and instruction through video films to demonstrate breast feeding.

Follow up was arranged in order to assess change in feeding ability and influence on health of infants.



Figure 1: video presentation to the family demonstrates feeding for cleft patients.

These infants were followed up regularly to adjust their feeding baby plate. Detailed questionnaire

forms were completed together with their families (the father or the mother or both of them). Analysis of the data was done.



Figure 2: Explanation and discussing the difficulties facing the cleft feeding.

RESULTS

1- Distribution of sample

Table 1: Distribution of the sample.

%	Female	Male	Total	Type of cleft
46%	13	22	35	BCLP
36.84%	10	18	28	UCLP
15.78%	8	4	12	CP
	0	1	1	M C
	31	45	76	
	40.78%	59.20%		

BCLP-Bilateral cleft lip and palate
 UCLP- Unilateral cleft lip and palate
 CP- Cleft palate
 Mc- Median cleft

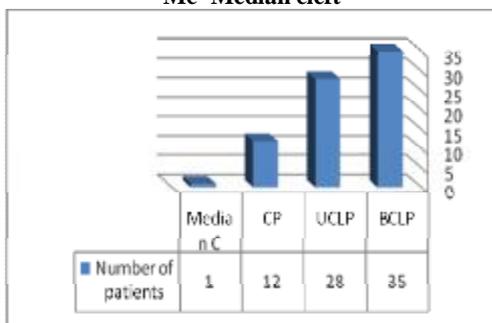


Figure 3: Distribution of the sample.

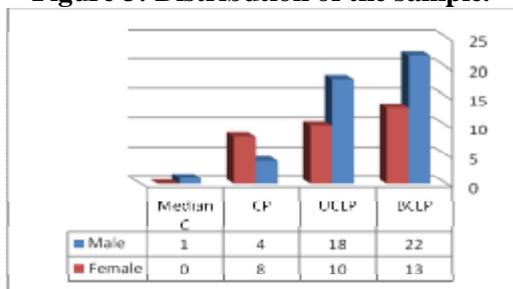


Figure 4: male/female distribution.

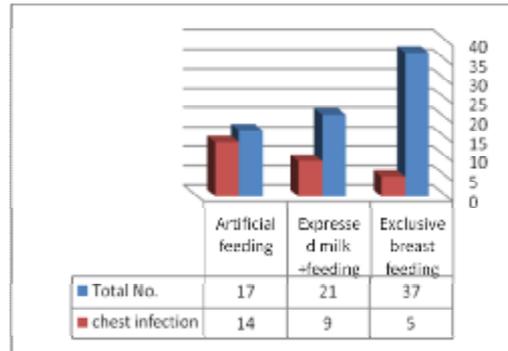


Figure 5: chest infection associated with different types of feeding.

3- 82.35% of infants who are artificially feed develop chest infection while 13.51% infants who are exclusively breast feed develop chest infection figure (5).

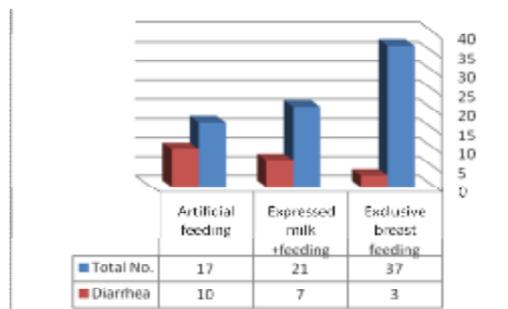


Figure 6: Diarrhea associated with different types of feeding for cleft infants.

4- 58.8% of infants who are artificially feed develop diarrhea while 8.1% of infants who are exclusively breast feed develop diarrhea figure (6).

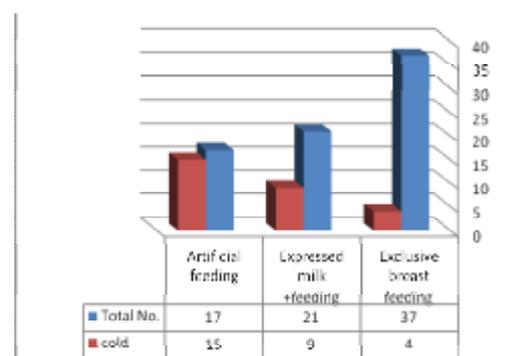


Figure 7: Cold associated with different types of feeding for cleft infants.

5- 88.2% of infants who are artificially feed develop cold while 10.8 % of infants who are exclusively breast feed develop cold figure (7).

DISCUSSION

Breast feeding refers to direct placement of baby to the breast for feeding and breast milk feeding refers to delivery of breast milk to baby via bottle, cup, spoon, or any other means except breast. Babies use both suction and compression to breastfeed successfully. The ability to generate suction is necessary for attachment to the breast, maintenance of a stable feeding position and, together with the let down reflex, milk extraction.

Seventy six patients took part in this study. This constituted the infant who have difficulty in feeding which include bilateral cleft lip and palate, unilateral cleft lip and palate and cleft palate while the infant who have cleft lip only were not included in the study. Males represented 59.2% of the sample while female represented 40.78%. In this study it was found that higher ratios of male patients had bilateral complete, unilateral complete cleft lip and palate than female patients while the cleft palate sample included more female patients. This is consistent with⁽¹⁰⁻¹⁴⁾

Infants with congenital cleft palate are generally unable to suck a regular nipple because the free flow of air through the cleft via the nose immediately decompresses the negative pressure of sucking. For many years, infants with cleft palate have usually been fed by depositing formula directly into the pharynx with a short rubber tube attached to the end of a bulb syringe, or with a medicine dropper, or with some make shift modification of a nipple^(10,11,15,16,17-20). Lang et al. reported their experience using a cup with a number of cases, including one infant who had a unilateral cleft lip and palate (UCLP)⁽²¹⁾, below are some of studies which give consistent finding with this study, colds, bronchitis, pneumonia, and other respiratory infections are 4 times greater in formula-fed babies.⁽²²⁾ Formula-fed babies get 3 to 4 times more ear infections than breast-fed babies.⁽²³⁾ Aniansson *et al.*,⁽⁵⁾ and Danner⁽²⁴⁾ both found a link between lack of breastfeeding and both upper respiratory tract infections and otitis media, the immunities in human milk provide protection against all kinds of infections which is especially important to a baby facing surgery⁽²⁵⁾. Jones study⁽²⁶⁾ infants were fed with an enlarged long nipple and supported by nursing education and some pre surgical orthopedics.

The literature describing breastfeeding outcomes in a CL/P is limited, anecdotal,⁽⁵⁾ “perhaps the greatest difficulty is convincing the mother that, for many infants breastfeeding is not only possible but optimal”.

The combination of a well-informed and educated parent population and better access to medical

information has increased the awareness of potential feeding problems of children with clefts. Young et al.⁽²⁷⁾ studied the information that parents of children with cleft lip, cleft palate, or both felt was most important to them. Feeding issues were a topic that parents deemed “critical,” with an emphasis on bottle-feeding difficulties and learning about special nipples and feeders available to their children

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