Summary

Nutrition is essential to the health and development of infants and children. Breastfeeding is superior to infant formula feeding because in addition to breast milk's nutritional advantages, it protects against infections through specific and non-specific immune factors and has long-term consequences for metabolism and disease later in life ***(Field, 2005).***

Human milk (HM) feeding has been associated with a lower incidence of feeding intolerance and NEC. A meta-analysis of four randomized clinical trails of donar HM versus formula suggests that 100% HM feeding is protective against NEC ***(Mc Guire, 2003).***

Feeding intolerance occurs frequently in VLBW infants as a result of medical instability, necrotizing enterocolitis, and immaturity of the gastrointestinal tract. ***(Al-Tawil,2002)***

Necrotizing enterocolitis is defined as an acquired disease , primarily of preterm or sick neonates , characterized by mucosal or even deeper intestinal necrosis and It is the most common Gastero intestinal emergency among neonates with initial symptoms of abdominal distention, bilious or bloody emesis or gastric aspirates, hematochezia, and pneumatosis intestinalis, and sometimes progresses quickly to include bowel perforation, acidosis, shock, and death. Trigger factors (i.e. perinatal hypoxia, mild infection or formula feeding) cause focal mild intestinal mucosal injury ***(Luig, 2005).***

The aim of this study was to analyze the association between Human milk (HM) feeding and the continuity of the process of feeding or feeding tolerance in very low birth weight (VLBW) infants by

determining wither HM is associated with smooth or interrupted feeding and so the relation between HM feeding and Necrotizing enterocolitis (NEC) in very low birth weight (VLBW) infants.

Our study is a prospective study preformed up on 30 infants (VLBW) with birth weight ≤1500 gm and gestational age ≤32 week which were classified into 3 groups .The first group (10 VLBW infants) who was exclusively breast feeding. The second group (10 VLBW infants) who was fed artificial milk only. The third group (10 VLBW infants) who was fed both maternal breast milk and artificial milk in different proportion .

The infants in all groups with gestational age less or equal to 32 week were divided in to 2 groups . those less than 30 week with a mean gestational age of 28.22 (± 0.667) .and those ≥ 30 week with a mean gestational age of 31.190 (± 0.873).

According to birth weight infants in all groups with birth weight less or equal to 1500 gm were divided into 2 groups : those < 1200 gm with a mean birth weight of 974 (±237) and those ≥ 1200 gm with a mean birth weight of 1367 (±105).

All infants in the study begun enteral feedings during the first 14 days of life and if enteral feedings were not be tolerated for more than 12 h enteral feeding was stopped .

During the first 14 days of life all infants were regarded for feeding intolerance and appearance of other symptoms of NEC as Heme-positive or bright-red blood in stool , Bleeding tendency, Peritonitis, Intestinal perforation or Shock in severe cases ***(Lin et al, 2006)***.

Cases investigated by Complete blood count (CBC), C- Reactive protein (CRP), Arterial blood gases (ABG), Stool analysis &culture, Serum electrolytes , plain Abdominal x- ray ***(Lin et al, 2006)***.

When we studied feeding tolerance we found that there is a highly significant statistical difference between groups as infants who fed formula milk only are of high risk to develop feeding intolerance than infants who fed breast milk either exclusive or mixed .

Also we found that the risk to develop NEC is lower in infants who fed breast milk than infants who fed artificial milk So we recommend early human milk feeding for VLBW infants.

Conclusion

Breast feeding for VLBW infants during the first 14 days of life from their mothers who were advised to express the breast to get milk to their infants is very helpful for tolerance of enteral feeding and decrease the incidence of gastero-intestinal disturbances and necrotizing enterocolitis.