JOINT EVENT

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Effect of feeding schedule on time to reach full feeds in neonates weighing 500 to 1500 grams: A randomized trial

Aim: To compare the effect of 3-hourly (3-h) versus 2-hourly (2-h) feeding schedules on time to reach full feeds in neonates weighing less than 1500 grams.

Materials & Methods: This was a randomized trial conducted in a level 3 neonatal intensive care unit, Surya Children's Hospital, Mumbai, India. We enrolled 120 preterm neonates with birth weights of 501 to 1500 g. The neonates were divided into 2 strata based on birth weight: 501 to 1000 g and 1001 to 1500 g. The neonates were randomized into 2 orogastric feeding schedules: 8 or 12 feeds (3-h or 2-h schedules, depending upon randomization) and a uniform feeding protocol was followed. Analysis was performed using the intention-to-treat principle. Categorical variables were compared using the Chi-square test. Continuous measures between groups were compared using 2-sample t test or Mann Whitney U test as appropriate. Data were analyzed using IBM SPSS version 21 software. P<0.05 was considered significant. Primary outcome measures were time (in days) to reach full feeds (defined as tolerance of 150 mL/kg/d of feeds for at least 48 h). Secondary outcome measures were time (in days) to attain birth weight; time (in days) to discharge; weight, length and head circumference at discharge; incidence of feed intolerance, Necrotizing Enterocolitis (NEC), intravascular hemorrhage (IVH), screen-positive sepsis, culture-positive sepsis, hypoglycemia, apnea, jaundice and Retinopathy of Prematurity (ROP), duration of total Parental Nutrition (TPN) and nursing and mortality.

Results: A total of 215 neonates were assessed for eligibility of which 95 were excluded. Hence, 120 neonates were enrolled in the trial. There was no significant difference in time (in days) to reach full feeds in the 2-h versus 3-h groups ($9.53\pm4.26 \text{ v/s } 9.85\pm5.48$; P=0.73). There was no significant difference between the 2 groups in most of the secondary outcomes. However the total time spent per day in feeding was significantly lesser in the 3-h feeding schedule group (P=0.04). Subgroup analysis revealed that among the neonates in the lower birth weight strata (501 to 1000 gms), those fed 2 hourly reached full feeds earlier compared with those fed 3-hourly (2-h group: $11.24\pm2.88 \text{ d vs. } 3\text{-h group}$: $14.14\pm4.98 \text{ d}$; P=0.041).

Conclusions: There was no significant difference in time to reach full feeds in all the neonates, irrespective of whether they were fed 2-h or 3-h. However, neonates < 1000 g reached full feeds earlier when fed more frequently (2-h feeding schedule).

Biography

Showkat Hussain Tali is a Consultant Pediatrics and Neonatologist, Health Services Kashmir, India. After obtaining his Bachelor's degree in 2005, he obtained his MD in Pediatric Medicine from University of Kashmir in 2010 and became Board Certified in Neonatology from the National Board of India in 2016. In the same year he joined Adesh University as Assistant Professor in Pediatrics and in charge of Neonatology. In November 2017, he joined Health services Kashmir as Consultant Pediatrics. He has 20 publications mostly in international journals. He has received many awards including Science Talent Search Award (1997), Creative Writing Award (2006) and Official Spot light Certificate by EET CRS at New Delhi (2017). On May 26/2017, he presented speech in International Congress of Gynecology and Obstetrics, Prague, Czech Republic. In September 2017 he presented his research paper and a poster at Los Angeles, California, USA at 14th World Pediatric and Neonatal Care conference. He also moderated at 14th World Pediatric and Neonatal care conference USA and Co-Chaired a session. In September 2017, he presented his scientific paper at 7th International Arab Neonatal Care Conference, Dubai, UAE and got first place prize for his presentation. He is a scientific committee member to Izmir Katip Celebi University Turkey for International Healthy Growing Kids Congress to be held in December 2018. He is also Editorial Board Member of *Archives of Pediatrics and Neonatology*, an international journal.

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