

# World Neonatology and Child Care Meeting

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## Necrotizing enterocolitis in a preterm infant newborn and role of feeding: An update



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**Statement of the Problem:** It is a clinical case presentation of a male preterm infant newborn (+31 weeks), who was delivered in our hospital and transferred to our NICU because of prematurity, VLBW and need to respiratory support. Baby shortly underwent necrotizing enterocolitis (NEC) on 5th day of life shortly after start of expressed milk feeding. This was early detected by use of Near Infrared Abdominal Spectroscopy (NIRS). Baby was deteriorated clinically in a couple of hours and underwent intestinal perforation with peritonitis.

**Methodology:** Abdominal exploration surgery with intestinal resection and end to end anastomosis was done urgently. Baby improved gradually and early feedings was started and gradually increased up to full feedings with use of human fortified milk (HMF) and probiotics, prebiotics.

**Findings:** The study stated the evidence-based feeding strategy guidelines for necrotizing enterocolitis (NEC) among very low birth weight infants and role of trophic feedings, probiotics, prebiotics and micronutrients in prophylaxis,

prevention and management of NEC. Prematurity is the single greatest risk factor for NEC and avoidance of premature birth is the best way to prevent NEC. The role of feeding in the pathogenesis of NEC is uncertain but it seems prudent to use breast milk (when available) and advance feedings slowly and cautiously. NEC is one of the leading causes of mortality and the most common reason for emergent GI surgery in newborns. NEC remains a major unsolved medical challenge for which no specific therapy exists and its pathogenesis remains controversial.

**Conclusion:** A better understanding of the pathophysiology will offer new and innovative therapeutic approaches and future studies should be focused on the roles of the epithelial barrier, innate immunity and microbiota in this disorder. Bioinformatics modeling is a new emerging strategy aimed at understanding the dynamics of various inflammatory markers and their application in early diagnosis and treatment.

### Biography

Amr Ismael M Hawal is a Pediatrician and Neonatologist whose experience in the field spans 20 years, backed by a higher education degree from Ain Shams University in Egypt. He is pioneering an open and contextual evaluation model based on constructive responses, which has led in the creation of new methods to improve Pediatric Healthcare, Neonatology and Pediatric Nutrition. He has established this model following his years of experiences in medical practice, research and evaluation, teaching and administration in hospitals and medical universities in the region including Egypt, Saudi Arabia and the UAE. He has published several studies in reputable international journals in Neonatology and Pediatric Nutrition. He has also presented his findings in prestigious international conferences and symposia.

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