



ISFAHAN UNIVERSITY OF MEDICAL SCIENCES
SCHOOL OF MEDICINE
PEDIATRIC DEPARTMENT

Thesis for obtaining the specialty degree in Pediatric

Title:

**Low Dose Supplementation of Lactulose in Preterm
Infants: A Randomized Placebo Controlled
Double blind Pilot Study**

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Abstract

Background:Serious infectious morbidity is high in preterm infants. Intestinal bacterial colonisation with beneficial bacteria is delayed in preterm infants whereas the number of potentially pathogenic bacteria is high. Enteral supplementation of prebiotics may reduce the incidence of serious infections, especially infections related to the gastrointestinal tract.

Objective:The objective was to evaluate enteral supplementation of low dose lactulose as a prebiotic in preterm infants.

Design:In a prospective, placebo controlled double-blind, randomized trial, ... healthy preterm infants (gestational age ≥ 28 wk and/or birth weight ≥ 1500 g) are randomly allocated to receive enteral 1% lactulose supplementation or placebo between day 3 and 30 of life.

Results:... infants participated (... lactulose, ... placebo). Small doses of lactulose appeared to be safe. The lactulose group tended to have fewer episodes of sepsis and lower NEC.

Conclusion:Enteral supplementation of lactulose in premature infants for prebiotic purposes seem to be safe and reduce the risk of serious infectious morbidity, NEC and late onset sepsis. This finding suggests a possible beneficial effect that should be evaluated in a larger study.

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