Background and Aim

In cyanotic congenital heart diseases (CCHD), with the changes in intestinal flora, necrotizing enterocolitis (NEC) and sepsis frequency increases. In this study, the effect of synbiotic use on morbidity and mortality in newborns with CCHD is evaluated.

Methods

- Fifty-seven newborns with CCHD were randomly assigned to receive either synbiotic [probiotic: *Bifidobacterium lactis*, 5x10 colony forming unit, 30mg+prebiotic: Chicory inulin, 900 mg (1 sachet/day Maflor®, Cidex), n=29] (Group-1) or placebo (n=28) (Group-2). Symbiotic or placebo was started with the first enteral feeding after hospitalization in NICU and continued until the infants were discharged.

Results

- There was no difference regarding the demographic and clinical features between groups. No difference was stated considering the first enteral feeding age and the time interval to reach full enteral feeding between groups. It was also observed that the duration of mechanical ventilation in Group-1 was shorter (p=0.007). Early and late clinical sepsis rate and late culture proven sepsis were lower in Group-1 (p=0.001). NEC (stage2) was significantly higher in Grup-2 (p=0.01). The frequency of increased gastric residuals during enteral feeding was less in Group-1 (p=0.001). The mortality rate was significantly lower in Group-1 (p=0.02). In multiple regression analysis it was observed that symbiotic use reduces mortality independently from birth weight, gender and surgical attempt (p=0.01).

Conclusion

Introduction of synbiotics with the first enteral feeding in newborns with CCHD after hospitalization in NICU shows a positive effect on morbidity and mortality.

**Abstracts**

**Abstract 1632**

**Graph 1**

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**Abstract 1632**

**Graph 2**

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**Conclusion**

- Use of evidence-based medicine, team training, audit cycle application to improve target outcomes and patient safety.

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**Abstract 1633**

**Graph 1**

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**1633**

**THE EFFECTS OF SYMBIOTIC USE ON MORBIDITY AND MORTALITY IN NEWBORNs WITH CYANOTIC CONGENITAL HEART DISEASE: A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL**

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**Background and Aim**

It is previously claimed that probiotic and prebiotic use in premature infants prevents pathogenic bacterial colonization in the intestine and reduces morbidity and mortality. In this study, the effect of symbiotic (probiotic+prebiotic) use on morbidity and mortality in very low birth weight (VLBW) infants is evaluated.

**Methods**

Thirty-four VLBW infants were randomly assigned to receive either synbiotic [probiotic: *Bifidobacterium lactis*, 5x10 colony forming unit, 30mg + prebiotic: Chicory inulin, 900 mg (1 sachet/day Maflor®, Cidex), n=17] (Group-1) or placebo (n=17) (Group-2) from the first enteral feeding and throughout the hospitalization period.

**Results**

- There was no significant difference regarding the sociodemographic features between groups. The time interval to reach enteral nutrition to 50 cc/kg/day was similar in both groups, whereas it took shorter time in Group-1 to reach 100 cc/day (p=0.02). Increased gastric residual (former feeding >50%) occurred less in Group-1 (p=0.002). There was no significant difference between groups in the rate of early clinical or culture proven sepsis, however late clinical sepsis rate and late culture proven sepsis in Group-1 was significantly lower (p=0.001, p=0.04). Symbiotic use reduced the risk of sepsis independently from gestational age and gender (p=0.03). NEC (stage2) was significantly higher in Group-2 (p=0.001). The rate of bronchopulmonary dysplasia (BPD) and retinopathy of prematurity (ROP) were lower in Group-1 (p=0.04, p=0.03). No difference was identified regarding mortality, actual weight during hospitalization and discharge between groups.

**Conclusion**

Introduction of synbiotics with the first enteral feeding can help to reduce feeding intolerance and morbidity in VLBW infants.

**Abstract 1634**

**THE EFFECTS OF SYMBIOTIC USE ON MORBIDITY AND MORTALITY IN PREMATURE INFANTS: A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL**

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**Background and Aim**

In premature infants with respiratory distress syndrome (RDS) the effect of synbiotics on morbidity and mortality is still controversial. We aimed to evaluate the effects of synbiotics use on clinical features between groups. No difference was stated considering the first enteral feeding age and the time interval to reach full enteral feeding between groups. It was also observed that the duration of mechanical ventilation in Group-1 was shorter (p=0.007). Early and late clinical sepsis rate and late culture proven sepsis were lower in Group-1 (p=0.001). NEC (stage2) was significantly higher in Grup-2 (p=0.01). The frequency of increased gastric residuals during enteral feeding was less in Group-1 (p=0.001). The mortality rate was significantly lower in Group-1 (p=0.02). In multiple regression analysis it was observed that symbiotic use reduces mortality independently from birth weight, gender and surgical attempt (p=0.01).

**Conclusion**

Introduction of synbiotics with the first enteral feeding in newborns with CCHD after hospitalization in NICU shows a positive effect on morbidity and mortality.

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**Abstract 1635**

**ARE WE ON THE CORRECT FREQUENCY WITH EXTREME PREMATURE BABIES? AUDIT ON VANCOMYCIN DOSE INTERVALS**

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