Plasma levels of TOS, TAS and OSI were significantly higher in patients with neonatal sepsis before therapy as compared to the control group (p<0.000, p<0.000 and p<0.000, respectively) and plasma PON-1 level was significantly lower (p<0.000). TAS levels in after treatment were significantly higher than in the control group (p = 0.009), while TAS, OSI and PON-1 levels were similar in after treatment compared to control group (p = 0.0.078, p=0.597, p=0.866, respectively).

**Objective** Urinary neutrophil gelatinase-associated lipocalin (uNGAL) has been suggested as a useful marker in limited recent studies for diagnosis of sepsis in pediatric and adult patients. We aimed to determined the value of uNGAL levels in early diagnosis of late-onset sepsis in preterms, and to compare CRP and PCT.

**Materials and Methods** Between February - May 2011, preterm infants admitted to NICU between the ages of 7 to 28 days divided into two groups: 24 cases with clinical sepsis (gestational age 32.8±1.45w) and 20 cases as control group (gestational age 35±1.49w).

**Results** There is no difference in two groups in terms of demographic features of babies. At 1. and 7. days of treatment in sepsis group, CRP (median:25.09mg/L vs 8.63mg/L), pro-ADM level was higher in the proven sepsis group than the clinical sepsis group (p<0.001). Although mean baseline CRP and IL-6 levels were similar between groups, mean baseline pro-ADM level was higher in the proven sepsis group than the clinical sepsis group (p<0.001).

**Conclusion** This is the first clinical study to investigate the value of pro-ADM for the diagnosis of proven and clinical sepsis in a newborn cohort including preterm newborns. Use of pro-ADM in combination with other acute phase reactants such as CRP and IL-6 for the diagnosis and follow-up of patients with neonatal sepsis has high sensitivity and specificity.