SUMMARY

Nosocomial infections are the most common complications encountered in the neonatal intensive care unit (NICU). They are associated with high mortality and prolonged duration of hospitalization in the survivors, contributing to an increased cost of health care.

Ventilator-associated pneumonia (VAP) is considered as the most frequent ICU-acquired infection among patients receiving mechanical ventilation (MV). This kind of respiratory tract infection prolongs the duration of mechanical ventilation and prolong infant stay in NICU. Most antibacterial chemotherapy prescribed in an ICU are administered for respiratory tract infections.

A positive blood culture result is the "gold standard" for detection of bacteremia in neonate and endotracheal aspirate culture is not considered a gold standard as sensitivity and specificity in predicting sepsis in ventilated newborns.

However VAP is assumed to be diagnosed more accurately by microbiological cultures of the respiratory tract.

The study included 30 ventilated neonates with clinical evidence of sepsis. Our selected cases were subjected to clinical

evaluation and to the Hematological Scoring System of Sepsis in addition to blood cultures and ETA culture.

The present study demonstrated that no similarity was found between organisms present in blood culture and those detected in ETA culture

Prolonged endotracheal intubation and mechanical ventilation change the bacterial colonisation of the respiratory tract, lead to pneumonia and even sepsis.

Because of longer duration of mechanical ventilation, longer stay in the ICU, increased use of antibiotics, higher costs for healthcare, and most importantly, increased mortality, the prevention of VAP is the major priority. But, despite the advances in the pathogenesis of VAP, intensivists still struggle with the prevention

strategy.

Proper hand washing, sterile technique for invasive procedures, and isolation of individuals with known resistant organisms are all mandatory for effective infection control.