Abstract

Ventilator-Associated Pneumonia (VAP) is common, difficult to diagnose, affects the most vulnerable patients and has a high mortality rate. During prolonged mechanical ventilation, the oropharynx, the oral cavity, the teeth, and the stomach is colonized by the pathogenic bacteria in critically ill patients. The colonized secretions are gathered in the oropharynx and the subglottic region. These secretions repetitively gain access to the lower airways via the exit through the cuff of the endotracheal tube. If the host's defense mechanisms are defeated, it causes the bacterial proliferation in the lower airways which leads to an inflammatory response in bronchioles and alveoli. The inflammatory response is characterized by capillary congestion, infiltration of leukocytes and macrophages and a fibrinolytic exudation in the alveolar area. If this inflammatory reaction occurs after more than 48 hours following the intubation, it is called Ventilator-Associated Pneumonia. The prevention depends on the reduction of the incidence of the bacteria in the upper airways and in the gastrointestinal tract, constraining the aspiration of these bacteria behind the cuff of the endotracheal tube and increasing the bacterial clearance from the lower airways. The Intensive Care plays an important role in the prevention of the origins of the VAP and in the general prognosis of the patient hospitalized on the acute bed care unit. (Friedrich, 2019)