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ABSTRACT

Title: Identification of Bacterial Proliferation in Patient with Endotracheal Tube (ETT) as the Cause of Ventilator-Associated Pneumonia (VAP) at the ICU of Mardi Waluyo Regional Hospital of Blitar

Authors: Yuly Peristiwati*, Byba Melda Suhita*, Sandu Siyoto*, Erni Firmadani**

Affiliations: 
* Surya Mitra Husada Institute of Health Sciences of Kediri
** Mardi Waluyo Regional General Hospital of Blitar

Email: yulystikes@gmail.com

ABSTRACT

Introduction: Bacterial colonization of the airways potentially occurs in patients with endotracheal tube (ETT). This infection is called ventilator-associated pneumonia (VAP) that occurs more than 48-72 hours after the placement of a ventilator. VAP contributes 30% of deaths from infectious diseases. Pathogenic colonies of oropharynxand microorganisms within secretions of an endotracheal tube (ETT) circuit will be aspirated, resulting in pneumonia. In addition, placement of an endotracheal tube will result in damaged cough reflex, slowing down of mucociliary escalator movement and increased mucous secretion. Methods: Observational design with a cross-sectional approach; sample was patients with an endotracheal tube and a mechanical ventilator at the ICU of Mardi Waluyo Regional Hospital of Blitar. Result: Results showed that 25% of respondents had signs of VAP, i.e., increased body temperature, increased number of leukocytes, decreased values of PaO2, shortness of breath and increased production of secretions. Identification of bacterial proliferation indicated 5 types of gram-negative bacteria as the cause of ventilator-associated pneumonia (VAP), i.e., Pseudomonas aeruginosa, Staphylococcus epidermidis, Staphylococcus aureus, Acinetobacter baumannii (94.11%), and Enterobacter gergoviae (93.93%). All bacteria were gram-negative after gram-type identification of bacterial colonies. Results of microat system examination showed that the gram-negative bacterial colonies contained lysine, ornithine, glucose, xylose and citrate.

Keywords: Bacterial Pneumonia, Endo Tracheal Tube (ETT), Ventilator Associated Pneumonia (VAP)
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