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Title: Microorganisms isolated in COPD patients hospitalised for acute exacerbations and their clinical correlations

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Body: Microorganisms isolated in hospitalised patients with COPD increase morbidity and mortality. We analysed the microorganisms isolated in blood, sputum, tracheal aspirate and/or bronchial lavage cultures of COPD patients hospitalised for acute exacerbations. 135 COPD patients were included in the study. Mean age of patients was 69.4±11.6 year and 74.1% of the patients was male. The length of hospital stay was 13.9±8.3 day and 57.0%(n=77) of the patients were followed up in intensive care unit (ICU). Mortality rate was 28.1%. In 51.1%(n=69) at least one culture was positive. Cultures of blood, sputum, tracheal aspirate and bronchial lavage were positive in 34.3%, 48.8%, 71.2% and 6.7% respectively. Acinetobacter was the most isolated microorganism.

Rates of microorganisms isolated in COPD patients

Microorganism	n(%)
Acinetobacter	28(20.7)
Pseudomonas aeruginosa	16(11.9)
MRSA	9(6.7)
Coagulase-negative staphylococci	9(6.7)
Stenotrophomonas maltophilia	8(5.9)
Klebsiella	8(5.9)
E. coli	5(3.7)
Streptococcus pneumoniae	4(3)
Enterococcus	4(3)
H. influenzae	2(1.5)
Enterobacter spp.	1(0.7)

The most common microorganism in the ward, and ICU patients were *Pseudomonas*(8.6%) and *Acinetobacter*(32.5%) respectively. Mean age was 72.2 ± 9.4 vs 66.4 ± 12.9 ($p=0.004$), mortality rate was 47.8% vs 7.6%($p<0.001$), length of hospital stay was 15.7 ± 9.7 vs 12 ± 6 days ($p=0.009$) and hospital costs were 6949 ± 6606 vs 2913 ± 1743 Turkish Liras ($p<0.001$) in culture positive patients and culture negative's. In hospitalised COPD patients in our clinic, *Acinetobacter* was the most common isolated microorganism. In culture positive group, mean age, mortality and hospital costs were higher compared to culture negative group.