Pulmonology and Phthisiology



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PREDICTIVE FACTORS OF MORTALITY IN COMMUNITY-ACQUIRED PNEUMONIA

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Pneumonia is an infectious disease of the lower respiratory tract, which occupies the top of deaths due to infections of the lower respiratory tract, clearly distinguishing itself from the others. An article published by Medscape magazine in September 2019 claims that community-acquired pneumonia cases recorded annually in the US kill between 40,000 and 70,000 people, acute lower respiratory tract infections causing more illness and death than all of the other infections (S.L. Baer, 2019).

The aim of the research was to review the scientific international literature on mortality due to community-acquired pneumonia and its predictive factor. We analyzed relevant publications from the PubMed, Scholar Google, NCBI, and Medscape databases over the years 2015 - 2019, about the causes of mortality in pneumonia by using the following search terms: mortality, pneumonia. The information was systematized highlighting the most important factors that lead to death in pneumonia.

From 4464 researches found we selected 48 into which the groups included at least 260 patients. The mean age of patients was between 44.5 and 66.5 except for one study that included patients >75 years. (T. Akagi, et coll. 2018). In all studies, patients had significant comorbidities, HTA being the most frequently observed (>69%) followed by diabetes (>48%); kidney disease (>33,3%); hepatitis (>17.5%), and obstructive pulmonary disease (>16%). Infectious bacterial agents led by Streptococcus pneumonia dominated in most of the cases, except in the research describing only viral pneumonia (S.L. Baer, 2017; Folusakin O Ayoade, 2019). According to these data, the index of lethality in CAP in hospitalized patients varies greatly (from 1% to 30%), being on average 14%, but increases to 50% in patients with severe pneumonia who require treatment in ATI service. In all of 44 studies, from 55% to 71% of the deceased patients were > 65 years of age, and around 89% of them had bilateral damage, an exaggerated immune-inflammatory profile, severe comorbidities, and the need to be hospitalized in ICU.

According to the literature data, predictive factors for mortality in CAP are age over 65, bilateral damage, an exaggerated immune-inflammatory profile, severe comorbidities, and acute renal failure.