AZITHROMYCIN: 30 YEARS OF SUCCESSFUL CLINICAL USE IN COMMUNITY-ACQUIRED LOWER RESPIRATORY TRACT INFECTIONS

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Abstract

Community-acquired lower respiratory tract infections (CALRTI) is a challenging problem of modern medicine. This is explained mainly due to high prevalence of these disorders, holding the first place in the structure of infection diseases. CALRTI are characterized by extensive healthcare resource utilization, high risk of hospitalization, disability and mortality.

CALRTI include acute bronchitis, community-acquired pneumonia, and exacerbation of chronic obstructive pulmonary disease, bronchiectasis and asthma.

CALRTI are caused by viruses, bacterial, fungi and protea, still the leading pathogens are, doubtlessly, bacteria.

Antibiotics are the mainstay of LRTI therapy, saving millions of lives annually in patients with serious diseases, such as sepsis, meningitis, osteomyelitis, tuberculosis, pneumonia and many others. Antibiotics are one of the most numerous class of drugs. More than 30 different classes of antibiotics are used in some countries. The number of branded antibiotics, not to mention generics, exceeds 200 compounds.

Current approaches to antibacterial therapy of CALRTI are presented in this review. The characteristics of the classes of antibacterials, especially macrolides, have been described. Special emphasis has been made on pharmacokinetics and pharmacodynamics of azythromycin, which has been used in clinical practice for more than 30 years. The following conclusions have been formulated:

– CALRTI remain one of the emerging problems nowadays;

– azythromycin is one of the most frequently prescribed antibiotics, which can be effectively used in treatment of mild CALRTI in out-patients;

– having an outstanding pharmacokinetics, azithromycin allows short three-day courses of treatment in out-patients with mild CALRTI;

– azythromycin is effective and safe in patients with CALRTI;

– the compliance of CALRTI patients, taking azythromycin is high.

Key words: community-acquired lower respiratory tract infections, antibiotics, macrolides, azythromycin.

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