Effect of clinical infected status on azithromycin in the treatment of U.urealyticum-positive premature infants

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Abstract

Background Treatment of azithromycin in clinical infected of U.urealyticum-positive may enable to reduce BPD. We aim to investigate the association of clinical infected status on azithromycin treatment of U.urealyticum-positive with the risk of BPD in very preterm infants. Methods A single-centre retrospective study was performed on all very preterm infants who were admitted to a tertiary unit from 2017 to 2019. Does Real-time polymerase chain reaction (Rt-PCR) test for respiratory secretions at the 1-3 first days of life. Therapeutic or preventive regimen of azithromycin was gave when U.urealyticum-positive combining clinical symptoms and signs. Results At last, a total of 118 infants were included in our study. 29 infants developed bronchopulmonary dysplasia (supplemental oxygen needed at 36 PMA or discharge). The incidence of BPD was significantly higher in infants with UU clinical infected (43.6%) compared to infants with UU colonization (15.2%, P = 0.001). After evaluate the treatment effect on azithromycin, UU clinical infected status being cure has significantly lower incidence of BPD when compared to un-cure infants ((7/10) vs (19/3); OR 0.111; 95% CI: 0.023-0.523; p = 0.005). UU colonization un-cure status was protective factor when compared to clinical infected un-cure status in develop to PBD, statistically significant in difference ((1/10) vs (4/3); OR 0.075; 95% CI: 0.006-0.954; p = 0.047). It might indicate that there was other else cause the BPD in the UU colonization infants. Conclusion The efficacious treatment by azithromycin in clinical infected status of U.urealyticum-positive has a significant difference in developing of BPD compare to non-efficacious.

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