CORRELATION BETWEEN INFLUENZA TYPE AND CLINICAL COURSE OF DISEASE IN HOSPITALIZED CHILDREN

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Background: Influenza A and B types have many differences, including those in clinical course. The aim of this study was to evaluate differences in clinical course of influenza type A, B, and AB coinfection in children hospitalized.

Material and methods: 294 children (aged 1-207 months, median 29 months) hospitalized due to influenza were diagnosed with type A (n=194 cases), type B (n=78), or AB (n=21) infection. Clinical presentation, inflammatory markers [white blood cells count(WBC), absolute neutrophil count(ANC), CRP, procalcitonin], and outcome (length of stay-LOS, antibiotic treatment, complication) were evaluated.

Results: Influenza A correlated more frequently with sore throat (OR=4.1, 95%CI: 1.27-13.08, p=0.018), and muscle aches (OR=2.86, 95%CI: 1.09-7.47, p=0.031), but not with coryza, headache, chest pain, cough, nor dyspnea. Children with influenza A were younger than those with type B (median 20.5 versus 46.5 months, p<0.01), fever prior to hospitalization lasted shorter (2 vs. 2.5 days, p<0.01), required slightly longer LOS (median 6 days, 95%CI: 5-9 versus 4-7, p=0.036), had higher procalcitonin (0.2 versus 0.15 ng/mL, p=0.018). Type B cases were hospitalized shorter than AB (6 versus 7 days, p=0.02), had higher WBC (7.19 versus $7*10^3$/uL, p=0.045). No other significant differences, including those between A and AB coinfection, were found. Neither, differences presented above have clinical significance. The risk of complications was lower for type A (OR=0.54, 95%CI: 0.29-0.99, p=0.048) with no differences in antibiotic treatment or LOS.

Conclusions: Influenza A and B differ only slightly in hospitalized cases, and no reliable predictive measures are available.

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