

P1400

Paper Poster Session

Influenza - clinical epidemiology

Influence of viral load in the mortality of infection by influenza A in elderly patients

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Background: The Influenza A virus affected thousands of elderly patients in Spain. Viral load may provide important information about the interaction between the infective agent and the host. The aim of this study was to describe Influenza A viral load at diagnosis and its relation to clinical characteristics and prognosis in a series of hospitalized elderly patients.

Material/methods: We performed a retrospective, descriptive study in all patients older than 65 years hospitalized between November 2013-March 2014 due to influenza A virus infection. The Influenza A infection was confirmed by detection of matrix protein 2 (M2) and pandemic Hemagglutinin H1 genes by using a real-time reverse transcriptase polymerase chain reaction (Real-Time RT-PCR). Continuous values were expressed as mean and compared using Student t test or U of Man-Whitney. Categorical values were expressed as absolute and relative frequencies and were compared using Fisher's exact test or χ^2 test. A p value lower than to 0.05 was considered as statistically significant. A binary logistic regression analysis using a step-wise (Wald) to determine the factors influencing the mortality of the infection was used.

Results: During the study period, 252 patients elderly patients were admitted with Influenza A infection (51.3% women, mean age 67). Thirty percent of patients had received a vaccine against pandemic virus. None had received antiviral treatment before admission. Viral load was determined within a median of 2.5 days after onset of respiratory symptoms. 57 patients developed a severe respiratory failure and 17 died. We didn't find significantly relation between, the sex or age and the presence of higher viral load. No significantly differences was found in viral load among the group of patients vaccinated and unvaccinated (3,040,919 [8,369,350] vs 3,099,390 [8,943,370] copies/mm³). Although viral load was higher in dead patients 4,979,736 [19,187,236] vs 3328597 [19187236], p = 0.070, OR 3.301, did not reach significantly difference.

Conclusions: Viral load of Influenza A virus is not correlated with the mortality of the infection although is higher in dead patients, or previous vaccination status.