

INFLUENCE OF VIRAL LOAD IN THE MORTALITY OF INFECTION BY INFLUENZA VIRUS IN ELDERLY PATIENTS

C. Menendez, M. Alvarez, D. Caravia, A. Garcia, M. de Oña, S. Melon, J Alonso, A. Rodríguez Guardado
Tropical Medicine Unit. Virology Unit Hospital Universitario Central de Asturias. Universidad de Oviedo. Spain

Objective:

✓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 and Methods

✓Retrospective, descriptive study in all patients older than 65 years hospitalized between November 2013-March 2014 due to influenza A virus infection.

✓A case was defined as a patient who was hospitalized for >24 h with influenza-like symptoms and had laboratory detection by the reverse transcriptase-polymerase chain reaction test of influenza virus.

Material and Methods

✓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).

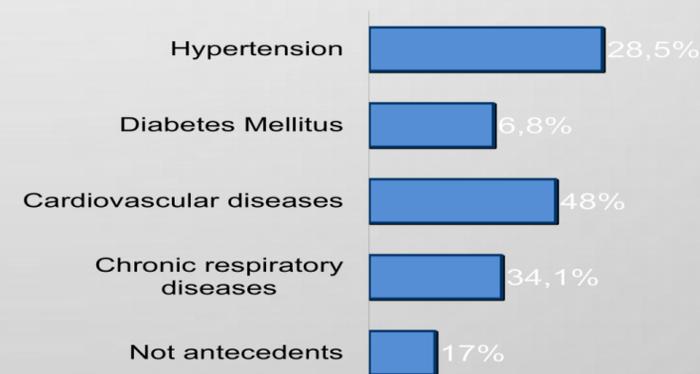
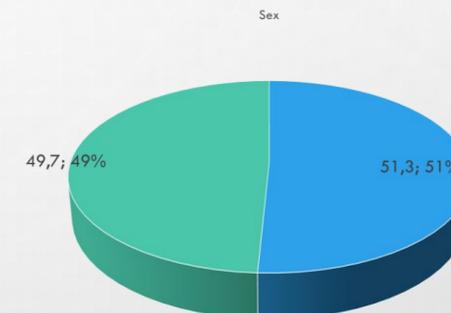
✓Continuous values were expressed as mean and compared using Student t test or U of Man-Whitney.

✓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 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 and the efficacy of the different therapies was used.

252 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.



Results

✓ No significant differences were 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 3,328,597 [19,187,236], p = 0.070, OR 3.301, did not reach significant 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

Address to contact: azucenarodriguez@telecable.es