

1119. Respiratory Viral Infections in a Cohort of Patients with Hematological Malignancies

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Background. Assess the prevalence of respiratory viruses, clinical course and outcomes of patients with hematological malignancies (HM) and acute onset of respiratory tract infection (RTI).

Methods. Patients with HM and acute onset of RTI from Instituto Nacional de Cancerologia in Mexico City were assessed. RTI symptoms, neoplasia and its treatment, comorbidities, lymphopenia, neutropenia, respiratory support, intensive care and outcomes were evaluated. Nasopharyngeal specimens were collected and tested

by Multiplex RT-PCR (AnyplexTMRV16, Seegene) for RSV A & B, INFA & B, PIV 1,23 & 4, AdV, MpV, CoVOC43, 229E & NL63, RV A/B/C, EV and HboV 1/2/3/4. A descriptive analysis was conducted.

Results. 95 patients were included from February 2013 to February 2014, 58 (61.1%) male, mean age 39 ± 16.3 years. Forty-five (47.3%) had leukemia, 29 (30.5%) lymphoma, 14 (14.7%) multiple myeloma, and 7 (7.4%) other malignancies. Four (4.2%) were recipients of stem cell transplant; 20 (21.1%) were obese. Twenty-three (24.2%) had < 500 neutrophils, and 12 (12.6%) were on severe lymphopenia. Thirty three (34.7%) were positive for one virus; 36 (37.9%) had viral co-infection, 26 (27.3%) were negative. The most frequently identified viruses were: rhinovirus (36%), RSV (19%), influenza AH1N1 (18%) and influenza A (16%). In spring and early summer, the viral activity was very low. During the rainy season, an increase on activity was observed, being MpV and rhinovirus the predominant viruses. At the beginning of the autumn, the number of RTIs increased, with a predominance of RSV ($n = 6$). Between December and February, the number of RTIs increased by 3 times, being influenza the most common virus; AH1N1 ($n = 17$), was the predominant serotype. Forty-five (47.4%) patients developed pneumonia, 12 (26.6%) required respiratory support. Seventeen patients (17.9%) died, 7 (41.2%) related to RTI, 3 with influenza and 3 with RSV.

Conclusion. RTIs in patients with hematological malignancies were frequent, 47.4% developed pneumonia. Viral co-infection was common (37.9%). Attributable mortality to pneumonia was more frequent in patients with influenza or RSV. Seasonality was similar to other reports from the Northern Hemisphere.

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