SERVIZO GALEGO de SAÚDE | Xerencia de Xestión Integrada de Vigo Vigo

HIGH PREVALENCE OF *Pneumocystis jirovendii* IN BRONCHOALVEOLAR LAVAGE (BAL) SAMPLES USING A MULTIPLEX-NESTED PCR.

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OBJETIVES

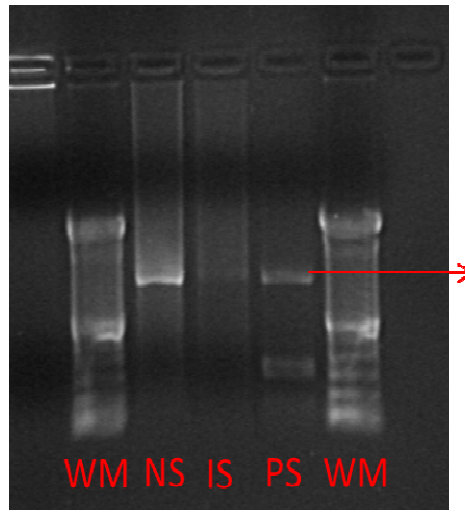
Identify the carriage rate and clinical significance of *Pneumocystis jirovencii*(PJ) using a novel home-made multiplex PCR with an internal positive/inhibition control in BAL samples.

METHODS

From March to November 2013, all BAL samples submitted to the Clinical Microbiology Lab were studied. A total of 112 BAL samples from 111 different patients were processed for DNA extraction using InstaGene Matrix (Bio-Rad). A multiplex nested-PCR was performed based on the method described by Wakefield et al. As an internal control the universal region 23S rRNA was used. PCR products were analyzed by agarose gel electrophoresis.

RESULTS

20(17.85%) patients were PJ positive, 75 negative, and 16 PCR-inhibited. Only one of the positive patients had a *Pneumocystis jirovencii* pneumonia (PJP) diagnosed by conventional methods (immunofluorescence). Ten patients were diagnosed of chronic lung disease (3, COPD; 3, silicosis; 2, cystic fibrosis, and 2, asthma). Nine of them were on corticosteroid-treatment. Pulmonary radiographic abnormalities related with PJ pneumonia (PJP) were identified in 10 patients, other radiographic anomalies not related with PJ were identified in 6 patients, and in 4 patients none radiographic anomalies were identified, so they were considered to be PJ asymptomatic carriers (9%).



WM: weight marker; NS:negative sample; PS: positive sample; IP: inhibited sample; IC: internal control

CONCLUSIONS: There are substantial cases of underreported PJP by inmunofluorenscence but diagnosed on the basis of clinical or radiologic findings. We found a high rate of PJ infection among patients diagnosed of a chronic lung disease. Asymptomatic PJ carriers might constitute a reservoir that may lead to acute PJP in a susceptible host.