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Pulmonary Pathology in HIV Positive Patient

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ABSTRACT

It is a commentary on pulmonary pathology of HIV positive patients. An old male patient of 62 years had a history of HIV. He was treated with grade III dyspnea, cough and hemoptotic sputum. He has been in antiretroviral treatment for 20 years, with good adherence. But, C-reactive proteins were seem to be increased when tested in lab. This man's case is discussed in this commentary.

A 62 year old male patient was treated for exacerbation of grade III dyspnea, cough and hemoptotic sputum. He presents as antecedent of hierarchy of positive serology for HIV (Human Immunodeficiency Virus) since the year 1997, pneumonia by *Pneumocystis jiroveci*, smoking of 6 packets/year, diagnosis of (Chronic obstructive pulmonary disease) COPD in 2007. He has been in antiretroviral treatment for 20 years, with good adherence. Increased C-reactive protein is observed in the laboratory. An obstructive pattern is shown in spirometry. A new chest (computed tomography) CT scan is requested, which reports in the level of the pulmonary parenchyma putting in evidence images of secuelar aspect, with fibro-spectral characteristics at the level of both pulmonary apexes, with no plane of separation with the homolateral pleura, with which it contacts and thickens, impressing presenter in its interior small areas of bronchial dilatation.

There are also important signs of centripanlobulillar and paraseptal enfiesema, with other areas, also with absence of parenchyma corresponding to pulmonary cysts, being those of higher hierarchy located in the biapical region and predominantly of the left lung **(Figures 1 and 2)**.

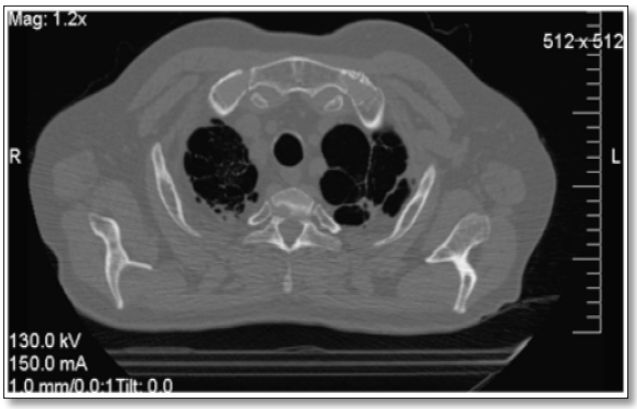

Figure 1. Chest CT of the pulmonary window, centripanlobulillar and paraseptal emphysema, associated with cystic areas, biapex predominantly left.

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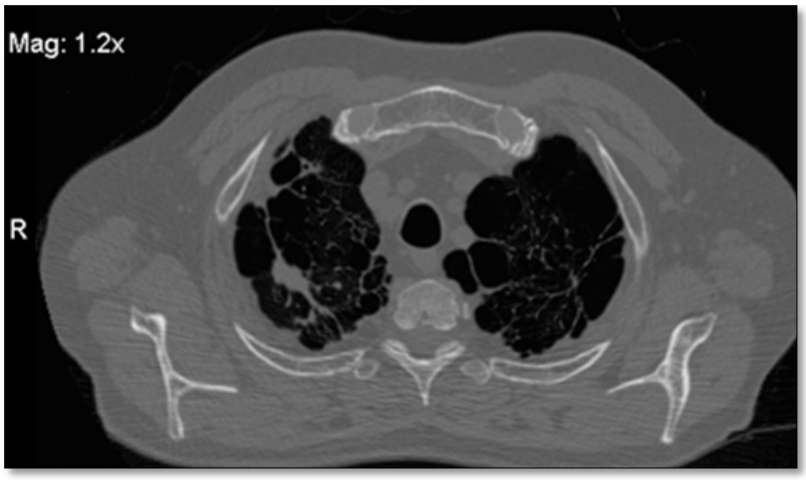

Figure 2. Chest CT of the pulmonary window, sequential images, fibrorectable, in lung apexes, contacting and thickening the homolateral pleurae.

Areas of slight pleural and cisural thickening are also identified, corresponding to their COPD-based pathology.

At the level of the anterior and lateral basal segments of the left lower lobe, a condensation area, associated with a frosted glass pattern, with linear images is visualized **(Figure 3)**.

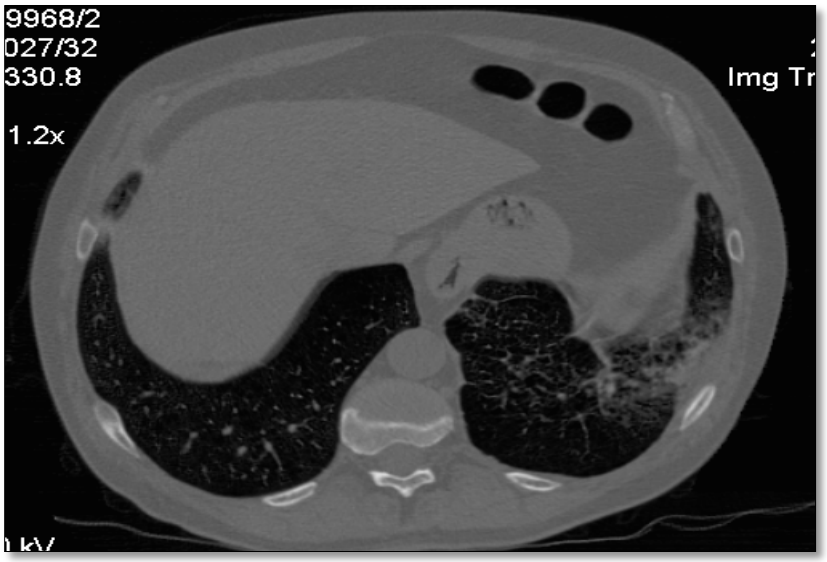

Figure 3. Chest CT of the pulmonary window, condensation area associated with frosted glass pattern (20 × 30 mm) in the basal anterior and lateral segments of the left lobe.

The condition is interpreted as an acute exacerbation of its underlying pathology and is treated with antibiotics, salmeterol puff and fluticasone. After 20 days a respiratory function test is done. The reduced diffusion capacity indicates a moderate degree of loss of functional alveolar capillary surface. It is interpreted as very severe obstructive airway pathology.

The use of tobacco is the main risk factor for COPD and although in the last years the number of adult smokers decreased, Argentina is still one of the Latinamerican countries which show an increased use of tobacco.

The relationship between smoking and COPD can be shown with these data: 80% of the COPD patients were smokers and, 1 of 4 smokers has COPD diagnosis.

It is important to consider that not only cigarette can produce COPD, in fact, other ways of uses of tobacco such as electronic cigarette, shisha and tobacco heater can lead to COPD too.

Despite the arrival of (antiretroviral therapy) ART, the epidemic of the human immunodeficiency virus remains a global health crisis with a high burden of respiratory disease

among infected people. While the first complications of the epidemic were mainly opportunistic infections, improved survival chances showed the appearance of non-infectious diseases that are associated with chronic respiratory symptoms and lung impairment.

Obstructive ventilatory defects and reduced diffusion capacity are common findings in adults, and the association between HIV and chronic obstructive pulmonary disease is increasingly recognized. People infected with HIV seem to have an increased risk of obstructive lung diseases, although whether this represents increased emphysema, chronic bronchitis, asthma or a combination of these disorders has not been fully evaluated.

Although some of the increase in obstructive pulmonary disease, especially COPD, may be related to smoking and drug abuse, the apparent risk of COPD remains high in people infected with HIV. Recent studies of lung functioning in people infected with HIV have elucidated some factors that may be important in the pathogenesis of obstructive pulmonary disease in HIV such as: poor control of HIV contributes to COPD and decreased lung functioning, metabolic disease and inflammation associated with asthma and airway hyper reactivity.

Chronic lung disease will become the third most common cause of death by 2030 in the general population. Early detection and proper management is a priority to improve the prognosis and patient's life quality. In turn, the diagnosis of COPD reinforces smoking cessation, involves a thorough study of pulmonary function by spirometry, 6-minute walk test (TC6M) and carbon dioxide diffusion test (CDDT) and screening for lung cancer.

REFERENCES

1. Risso K, Guillouet-de-Salvador F, Valerio L, Puglièse P, Naqvi A, et al. (2017) COPD in HIV-infected patients: CD4 cell count highly correlated. PLoS One 12.
2. Triplette M, Attia E, Akgün K, Campo M, Rodriguez-Barradas M, et al. (2017) The differential impact of emphysema on respiratory symptoms and 6-minute walk distance in HIV infection. J Acquir Immune Defic Syndr 74: 23-29.
3. Ronit A, Lundgren J, Afzal S, Benfield T, Roen A, et al. (2018) Airflow limitation in people living with HIV and matched uninfected controls. Thorax 73: 431-438.
4. Fitzpatrick ME, Kunisaki KM, Morris A (2018) Pulmonary disease in HIV-infected adults in the era of antiretroviral therapy. AIDS 32: 277-292.