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SPONTANEOUS PNEUMOTHORAX AS A CONSEQUENCE OF TUBERCULOSIS IN ANGOLA: CASE REPORT

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ABSTRACT

Tuberculosis it is a well Know couse of secundary pneumothorax, in regions where tuberculosis is endemic complications such as secondary pneumothorax are increasing in prevalence, we are going to present cases of two patients, ages (32 and 45 respectively) received in the emergency department of the Hospital Complex for Cardiopulmonary Diseases, in the city of Luanda in Angola, Africa. Each of the referred patients presented respiratory difficulty and cough with sputum, radiological images showed compromised airways and deviation of mediastinal structures.

KEYWORDS: Tuberculosis, spontaneous pneumothorax, empyema.

INTRODUCTION

Tuberculosis (TB) is a long-recognized and well-documented cause of secondary spontaneous pneumothorax, with an incidence of approximately 5% in patients with pulmonary tuberculosis.[1] A variety of sequelae and complications can occur in the pulmonary and extrapulmonary portions of the thorax in treated or untreated patients.[2] Pleural infection results from rupture of subpleural caseous lesions, resulting in the formation of chronic empyema. Bronchopleural fistula can occur spontaneously as a consequence of the progression of the pathology itself.[3] Both chronic empyema and bronchopleural fistula can result in spontaneous pneumothorax (and subsequent tension pneumothorax), the latter with a more acute presentation. Pleurostomy is the indicated treatment, along with adequate pharmacological management of tuberculosis and other infections. In some cases, surgical intervention is necessary to correct bronchopleural fistulas and to control empyema through pleural window surgery.[4,5,6]

METHOD

Report of clinical cases of two patients treated at the emergency room of the Hospital Complex of Cardio-Pulmonary Diseases CDAN in the year 2022.

Case 1: A 32-year-old male with known human immunodeficiency virus (HIV) was admitted to the emergency room with progressively worsening respiratory difficulty. Chest X-ray showed pneumothorax and air-fluid level on the right. Pleurostomy was performed, with improvement of symptoms and pneumothorax (Fig 1)

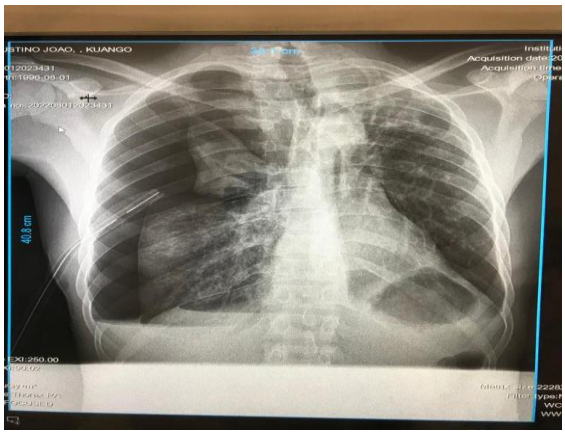

Fig 1- X-ray of the first case after middle plurostomy on the right showing the presence of air in the pleural space.

Case 2: A 45-year-old man presented to the Emergency Room, referred from the center for treatment of endemic and pandemic diseases CETEP, with fever, cough, dyspnea and tachypnea. Initial patient assessment

showed a young patient in respiratory distress. Chest X-ray confirmed tension pneumothorax with air-fluid level on the right. Pleurostomy was performed with abundant drainage of purulent liquid under pressure. Figure 2-(A,B)

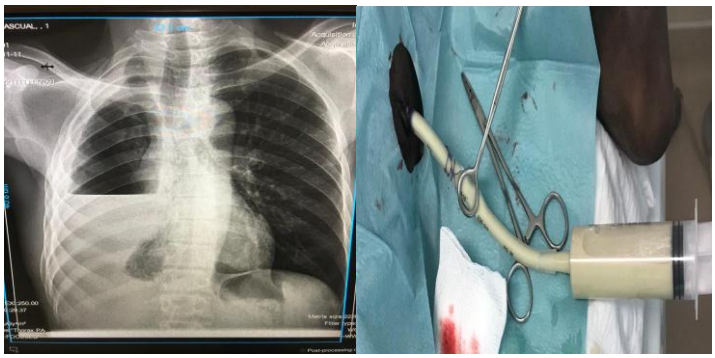

Fig 2 - (A) Pre pleurostomy chest X-ray showing air and fluid level in the pleural space (B) Post pleurostomy empyema fluid drained.

DISCUSSION

These patients suffered from spontaneous tension pneumothorax with empyema secondary to presumed pulmonary tuberculosis. The patient in case 2 was referred from the center for treatment of endemic and pandemic diseases (CETEP). Both patients improved after pleurostomy with tube and drainage (via suction) of the empyema, the two patients had a hospitalization time of more or less 1 month.

In Angola, with an estimated population of 34 million inhabitants, the estimated prevalence of TB in 2015 was 243.6 x 100,000 inhabitants, and an increase in annual incidence of 2%. Spontaneous pneumothorax will become an increasingly common pathological condition and a cause of respiratory distress.[7]

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