ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 08, Issue, 05, pp.20560-20562, May, 2018

ORIGINAL REVIEW ARTICLE OPEN ACCESS

A CASE OF EXTRAPULMONARY LYMPH NODES TUBERCULOSIS IN A HEMODIALYSIS PATIENT

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ARTICLE INFO

Article History:

Received 10th February, 2018
Received in revised form
29th March, 2018
Accepted 17th April, 2018
Published online 31st May, 2018

Key Words:

Hemodialysis,
Lymph Nodes Tuberculosis,
Sarcoidosis.

ABSTRACT

There was described a case of extra pulmonary lymph nodes tuberculosis in a type 2 diabetes mellitus chronic hemodialysed (HD) patient, with hepatitis B virus. The association of these comorbiditieshasraised therapeutic controversy. The signs and symptoms and also, thebiopsy and imaging investigations were initially interpreted as sarcoidosis and treated accordingly. Unfavorable clinical evolution under corticosteroids decided reevaluating the histological sections, which were positive for the diagnosis of tuberculosis. After 6 months of tuberculostatics, the clinical and paraclinical evolution was favorable. The mediastinal localization of the tumor mass has made the diagnosis very difficult, including biopsy sampling. Also, the differential diagnosis between sarcoidosis and lymph nodes tuberculosis was crucial for the therapy's management.

Citation: Brătescu Lavinia-Oltița, Gemene Marta-Emanuela, Moga Cristina-Gabriela and Copăceanu Diana, 2018."A Case of Extrapulmonary Lymph Nodes Tuberculosis in a Hemodialysis Patient", *International Journal of Development Research*, 8, (05), 20560-20562.

INTRODUCTION

Tuberculosis lymphadenitis is the most common form of extra pulmonary tuberculosis. 50% of extrapulmonar locations are represented by tuberculosis of lymph nodes. The occurrence of isolated mediastinal lymphadenopathy decreases with increasing age and occurs rarely in adults (Keerthi, 2014). In the absence of pulmonary tuberculosis, ganglionary involvement makes the diagnosis to be difficult and tardive, delaying the onset of the treatment. Mediastinal lymph nodes location compels us to the differential diagnosis with: sarcoidosis, carcinoma, sarcoma, lymphomas, and infectious adenitis, collagen or systemic diseases. It may be very difficult to differentiate radiologically one from the other (Keerthi, 2014; Khilnani *et al*., 2011). Bilateral hilar lymph node enlargement is much less common in tuberculosis than in sarcoidosis (Keerthi, 2014). The combination of (1) right paratracheal, (2) right hilar and (3) left hilar node enlargement is termed the 1-2-3 pattern and is typical of sarcoidosis (Keerthi, 2014; Webb, 2011).

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In our case, we suspected sarcoidosis or lymph nodes tuberculosis as a cause of mediastinal mass. This patient did not present with typical signs/symptoms of tuberculosis. The final diagnosis of tuberculosis was made on histopathological examination of mediastinal lymph node biopsy.

Case presentation: A 67-years-old woman, with insulin dependent type 2 diabetes, chronic hepatitis B, diabetic kidney diseasein hemodialysis (HD) treatment for 3 years, was referred one year ago with nonspecific pulmonary symptoms (dry cough, dyspnea) and dysphagia. The laboratory report showed: inflammatory syndrome (C reactive protein 11 mg/L), mild lymphocytosis, mild hypercalcaemia (10.3 mg/dl), secondary hypercalcemia (intact parathormon 380pg/ml). The X-ray detected large left superior mediastinum and chest CT - scan highlighted polylobate left paraaortic mass with necrosis tendency (7,5/5cm) (figures 1, 2 and 3) in relation to large mediastinum vessels (aorta, pulmonary artery, brachiocephalic vascular package). Left thoracotomy with multiple tumoral biopsy lead to the diagnosis of sarcoidosis (by exclusion diagnostic: Ziehl-Nielsen initial coloration was negative). The initial serum angiotensin converting enzyme (ACE) level was slightly above the upper limit of normal.

Figure 1.

Figure 2.

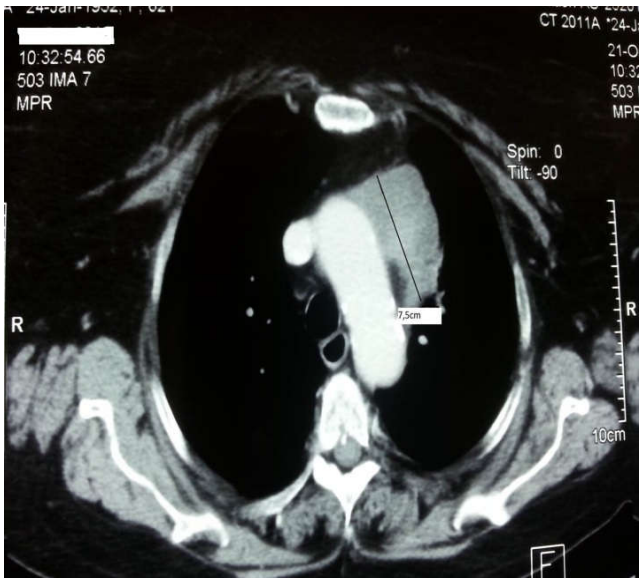

Figure 3.

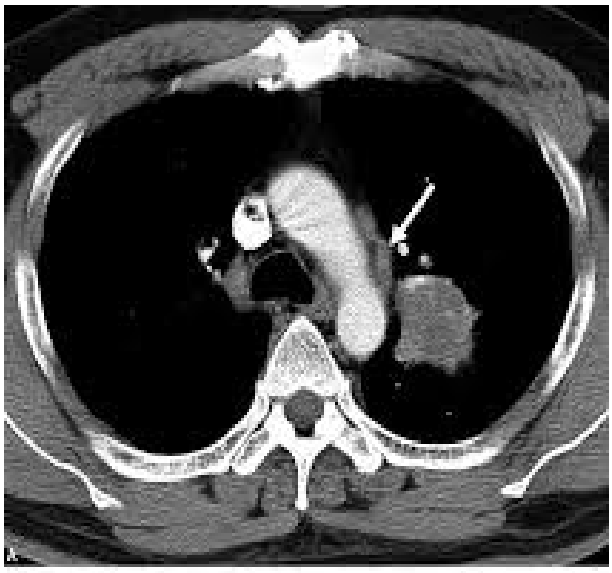

Figure 4.

Laboratory tests and imaging investigations have led to strong initial suspicion of sarcoidosis and 1mg/kg bw/day corticosteroids therapy (preceded by treatment with Lamivudine) was initiated consequently. Because the clinical evolution was unfavorable, we decided reevaluating the histological sections (epithelioid cell granulomas with necrosis and positive Ziehl-Nielsen coloration) and another CT - scan was made. The repeat of the ACE level was in normal limit. The clinical condition of the patient did not allow for bronchoscopy. The diagnostic was reconsidered, establishing rare extra pulmonary lymph node tuberculosis in older patient. The corticosteroid doses were gradually excluded. The treatment was started on isoniazid 300 mg/day, rifampicin 600 mg/day, ethambutol 600 mg/day in schedule of 7/7days per week and pyrazinamide 2000 mg, 2/7 days per week (HRZE – H300 R600 E600 7/7 and Z200, 2/7) -2 months, then isoniazid 300mg/day and rifampicin 600mg/day in schedule of 3/7 days per week (H300 R600, 3/7) – 4 months. The treatment was tolerated without any incident and was discharged after 6 months, with significant reducing symptoms, paraclinical favorable evolution and significantly decrease of mediastinal tumor (from 7,5/5cm till 1,8/0.6 cm)on chest X-ray and CT-scan (Figure 4).

DISCUSSION

Tuberculosis can have varied presentations and can involve any part of the body (Keerthi, 2014). Involvement of the mediastinal lymph nodes in tuberculosis is a common condition in some countries (Keerthi, 2014) , occurs more frequently in childhood, but also among adults from endemic countries and in HIVinfected people (Singh, 2017). Isolated and asymptomatic mediastinal lymphadenitis is uncommon in immunocompetent adults (Singh, 2017; Styblo, 1989).The case particularity is represented by disease association (diabetesmellitus, chronic kidney disease, chronic hepatitis B and mediastinum lymph nodes tuberculosis) in a HD patient. It is known that HD patients are immunosuppressed. Differential diagnosis between sarcoidosis and extrapulmonary tuberculosis was very important, because corticosteroids administered for sarcoidosis could decompensate liver function (replication of hepatitis B virus) and glycemic status. The diagnostic value of sputum examination is low in patients

without parenchymal lesions of tuberculosis (Keerthi, 2014). Serum ACE levels are elevated in only 60% of the patients with sarcoidosis and in less than one-third of the patients with chronic disease (Keerthi, 2014). Patients with infectious granulomatous diseases such as tuberculosis and histoplasmosis occasionally have an elevated ACE level (Keerthi, 2014; Lieberman, 1979). On the other hand, the tuberculostatic treatment could decompensate liver and eye function, and doses must be reduced for Clcr <15ml/min/1,73m2. In addition to this, the polylobate mass in relation with large and vital mediastinal vessels compel to closely monitor and relatively reserved prognosis.

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