

Metastases Of Pheochromocytoma Or Multifocal Tuberculosis? Difficulty Of Diagnosis, A Case Report.

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Citation

P Toure, A Leye, Y Leye, M Diop, M Diop, S Elfajri, M Ka. *Metastases Of Pheochromocytoma Or Multifocal Tuberculosis? Difficulty Of Diagnosis, A Case Report.*. The Internet Journal of Endocrinology. 2010 Volume 6 Number 2.

Abstract

Multifocal tuberculosis is rare. Its presentation often misleads the diagnosis. When hepatic, splenic and lymph nodes localization of the tuberculosis occur incidentally with pheochromocytoma, a problem of differential diagnosis with metastatic diseases may arise. We report the case of a 43-year-old woman with right adrenal pheochromocytoma associated with multifocal tuberculosis (lung, lymph nodes, liver and spleen). The evolution was good after tuberculosis chemotherapy and resection of the adrenal tumor.

INTRODUCTION

Tuberculosis (TB) is an endemic, cosmopolite and severe disease currently on the rise, especially among immunocompromised patients. Its disseminated presentation is often unrecognized. To the best of our knowledge, unexpected association with pheochromocytoma has not been reported. We report a case of multifocal TB associated with pheochromocytoma.

CASE REPORT

A forty three-year-old Senegalese woman hospitalized on June 3rd 2008 protracted fever, chronic cough and alteration of clinical status. She had no past history of high blood pressure or contact with TB patients. We noticed a previous hospitalization in cardiology unit for a non documented cardiac ischemia. At admission, she had important weight loss and fever at 38.5°C. Physical examination revealed an enlarged left supraclavicular lymph node non-tender and painless, a right inferior pulmonary condensation syndrome and anemia.

Blood count revealed a hypochromic microcytic anemia with hemoglobin at 6.8g/dl. C reactive protein was elevated at 192mg/l. Blood and urine cultures, thick blood smear, HIV, hepatitis B and C serologies were all negative. Tuberculin skin test (20 mm in diameter) and AFB smear were both positive. Supraclavicular node biopsy found a lymphadenitis with presence of caseous granuloma. Chest X-ray (figure 1) showed bilateral hilar and basal reticulonodular opacities. She presented hypertension flare on the 2nd day and 5th day

of hospitalization with a flushing. This justified the search of pheochromocytoma. Urinary metanephrines were up to 120 times normal and normetanephrines up to 19 times normal values. Thoraco abdominal and pelvic CT scan shows a right adrenal mass of 81 mm of size with a small necrosis area (figure 2), multiple hepatic hypodensities of different sizes without enhancement, hypodense splenic masses (figure 3) and celiomesenteric large lymph nodes with central necrosis. It also showed a bilateral interstitial lung disease with pleural effusion.

Evolution was good under TB chemotherapy. She gained 20 kg after 6 months of treatment. Control CT scan (figure 4) noted a substantial regression of the hepatic, splenic, lymph nodes and pulmonary lesions. However, the right adrenal mass remains intact. It has been removed surgically three months later. Histology concluded to pheochromocytoma displayed by a fibrous capsule without getting over it. Lesion was richly vascularized without intravascular embolus. Tumor cells appeared in cluster separated by spaces delimited by endothelial line. The cytoplasm contains argyrophil granulations and the nucleus was rounded with a prominent nucleolus.

Two months after surgery ultrasound revealed an empty adrenal space. The liver and spleen were normal. Enlarged lymph nodes had disappeared. Urinary metanephrines control was normal on the third, sixth and sixteenth months of follow-up.

Figure 1

Figure 1: Chest X-ray showing bilateral hila-basal opacities.

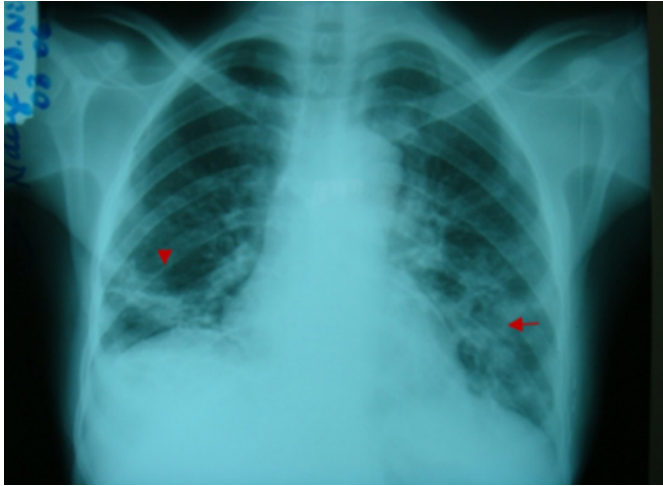


Figure 3

Figure 3: Abdominal CT during the arterial phase showing multiple hypodense images of the liver with various sizes and splenic hypodense nodules

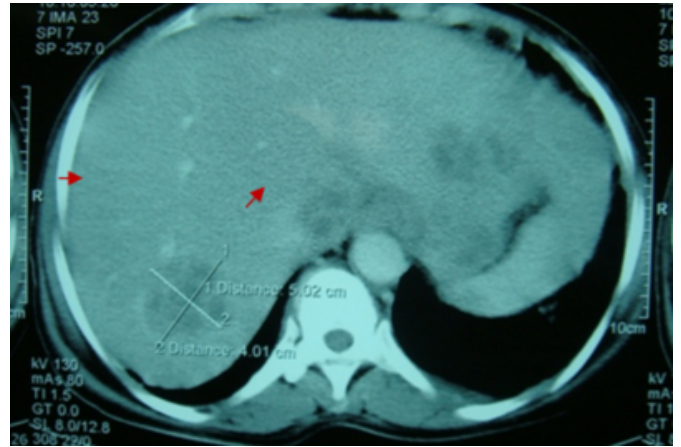


Figure 2

Figure 2: Abdominal CT during arterial injection showing a right adrenal mass of 81 mm in long axis with small necrosis areas.

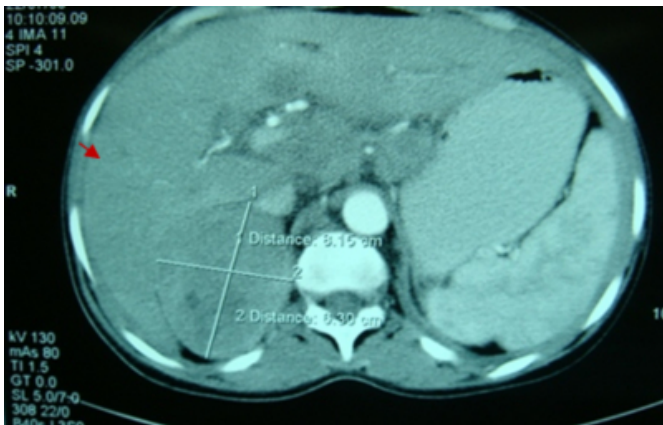
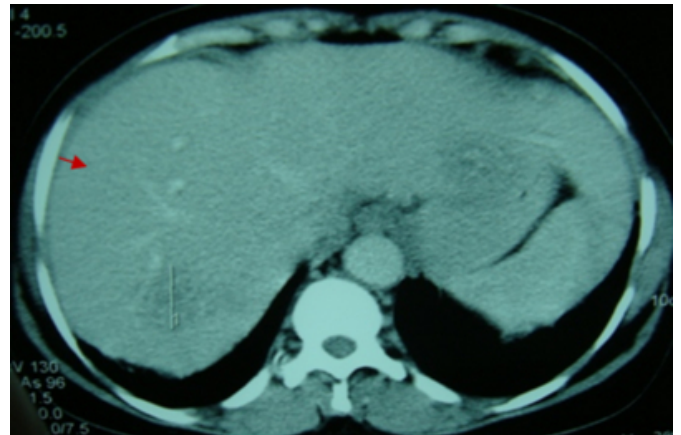


Figure 4

Figure 4: Abdominal CT scan showing the presence of hypodense areas of the liver with microcalcifications.



DISCUSSION

Multifocal tuberculosis represents 9 to 10% of all TB forms [1]. Clinical findings are not specific and often misleading. Hepatic involvement in multifocal TB is reported in 10% to 25% of all cases if a hepatic biopsy is performed systematically [2]. Frequency given the other abdominal and digestive localizations is 1.64% [2]. The splenic localization is rare [3]. It is mostly always due to dissemination [4].

In our case report there was no abdominal sign leading to liver and splenic involvement. Ultrasonography is very helpful for diagnosis but not pathognomonic. It often reveals heterogenous aspect of liver with sometimes riddled or abscessed lesions [2]. CT scan shows unique or multiple hypodense lesions non enhanced by the contrast sometimes associated with calcifications [5]. This description is also

found in our case report. In MRI, masses consist of hyposignal in T1-weighted and T2-weighted sequence [5]. Enlarged lymph nodes are very frequent particularly around the pancreas and mesenteric artery and are classically hypodense with peripheral spontaneous contrast.

Adrenal tuberculosis is rare [6]. When it is present it is quite often unilateral [7]. It could represent up to 6% of multifocal TB as indicated in a very large metaanalysis in serial adrenal autopsies carried out in Hong Kong [6]. In this study, adrenal TB was responsible for 83% of deaths and the diagnosis remained unsuspected in 47% of patients illustrating the severity and the difficulty to diagnose this affection. For our patient; in one hand, adrenal tumor may get confused with an authentic TB if the episodic hypertension did not occur during hospitalization associated with elevation of urinary metanephrines; In another hand, hepatosplenic lesions contraindicated liver biopsy during pheochromocytoma.

Diagnosis delay of adrenal tumor was longer though it has been discovered at the same time as TB. Past history of non documented ischemic cardiopathy might be a clinical sign of pheochromocytoma. It's now admitted that the diagnostic delay of adrenal tumor is approximately 3 years due to less specificity of clinical signs [8]. Sixteen months after surgery, we are not able to assert the benignity of pheochromocytoma, although there is no clinical evidence of recurrence and metanephrines remained normal. Malignancy is sometimes asserted after several years with the emergence of metastases. Unlimited follow-up after pheochromocytoma surgery is required. To date, no feature is able to predict the occurrence of malignant pheochromocytoma. The diagnosis of malignancy can be made only retrospectively when metastases have become evident. There is no validated

protocol for monitoring patients after surgery for pheochromocytoma to detect metastases early [9].

CONCLUSION

To our knowledge we report the first case of association of multifocal tuberculosis and pheochromocytoma. The originality of this case report resides on the diagnostic difficulties due to unavailability of MIBG scintigraphy in our country, which could provide arguments about metastatic or infectious origin of hepatosplenic lesions.

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