

Pulmonary Hydatidosis and Hydatid Pulmonary Embolism

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Abstract

Case Report

We present an extremely rare case of a old man 52 ans with hydatid pulmonary embolism caused by a direct invasion of the pulmonary artery by a hydatid cyst. Even if it is a benign parasitic disease, it can lead to serious complications such as arterial, systemic, or multivisceral dissemination or being responsible for an anaphylactic shock. Because of the clinical polymorphism, the diagnosis can be delayed. Therefore, A chest CT angiography is the gold standard for the positive diagnosis.

Keywords: Pulmonary hydatid embolism, CT angiography, Pulmonary Hydatidosis.

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INTRODUCTION

The pulmonary hydatidosis is a frequent entity seen particularly in Mediterranean countries [1]. It frequently infects the liver and the lung [2] and mostly surgically treated with an uneventful recovery. However, some complications can occur making the prognosis bad. The hydatid pulmonary embolism is a very rare complication caused by rupture of a hepatic or cardiac hydatid cyst [3] or more rarely originating from a direct involvement of the artery pulmonary by a hydatid pulmonary cyst. We present a case of a old man hospitalized in pulmonary department for hemoptysis.

CASE REPORT

A 28 year-old man, with history of hepatic hydatid cyst operated on 1998. treated for pulmonary hydatidosis in 2002. He was hospitalized in pulmonary department for hemoptysis of low abundance associated with night sweats without fever (Fig.1). The Chest CT Angiography shows hydatidosis and hydatid pulmonary embolism (Fig. 1) and (Fig. 2). After albendazole therapy and anti-coagulants, the patient did well with partial resolution of his symptoms.

DISCUSSION

Until now, pulmonary hydatid disease poses real public health problems. It is endemic in many Mediterranean countries [1]. The causative organism is a worm called *Echinococcus granulosus* that resides in the jejunum of dogs and produces eggs. These eggs, eliminated in the stools are then ingested accidentally by

intermediate hosts including humans; liberate an embryo in the duodenum, which enter the portal circulation through the intestinal mucosa. Most of them are trapped in the liver while the rest pass through it and disseminate to other organs then develop into hydatid cysts.

Its prognosis is generally good but can turn into a dramatic situation by the occurrence of complications.

Hydatid pulmonary embolism is an exceptional but a potentially life-threatening complication because of the risk of acute fatal complications such as anaphylactic shock [4].

The clinical picture is non specific and not always alarming, ranging from a simple discomfort associated with a skin rash to an anaphylactic shock at the acute phase [5] or general clinical signs of pulmonary embolism due to obstruction of pulmonary artery branches. It could also be incidentally discovered during a work-up of the lesions of the hydatid disease as the case of Rabah *et al.*, [6].

The diagnosis is based on the imaging findings. The chest CT angiography is the gold standard.

The treatment is difficult and still not codified. Surgical management is the first-line treatment for most cases of pulmonary arterial hydatidosis. It is based on resection of the hydatid cysts with more often a conserving surgery of pulmonary parenchyma [7]. The medical therapy helps to reduce the postoperative spread and can be used individually if there are contraindicated

of surgical treatment. Therefore, the best treatment is prevention.

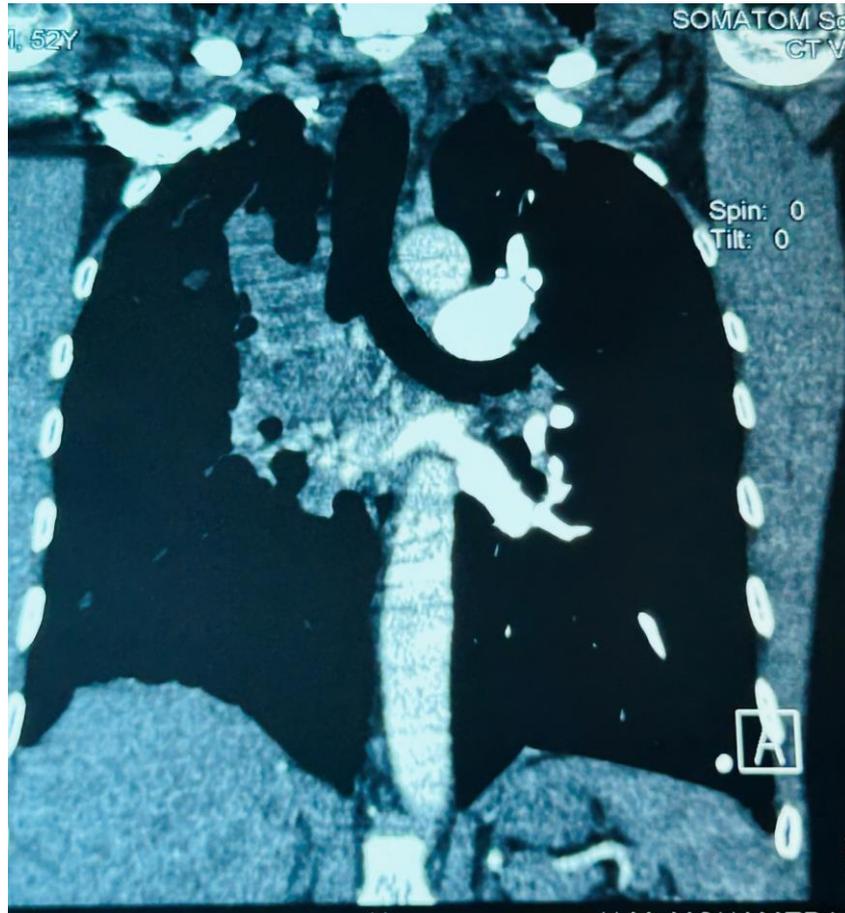


Fig. 1

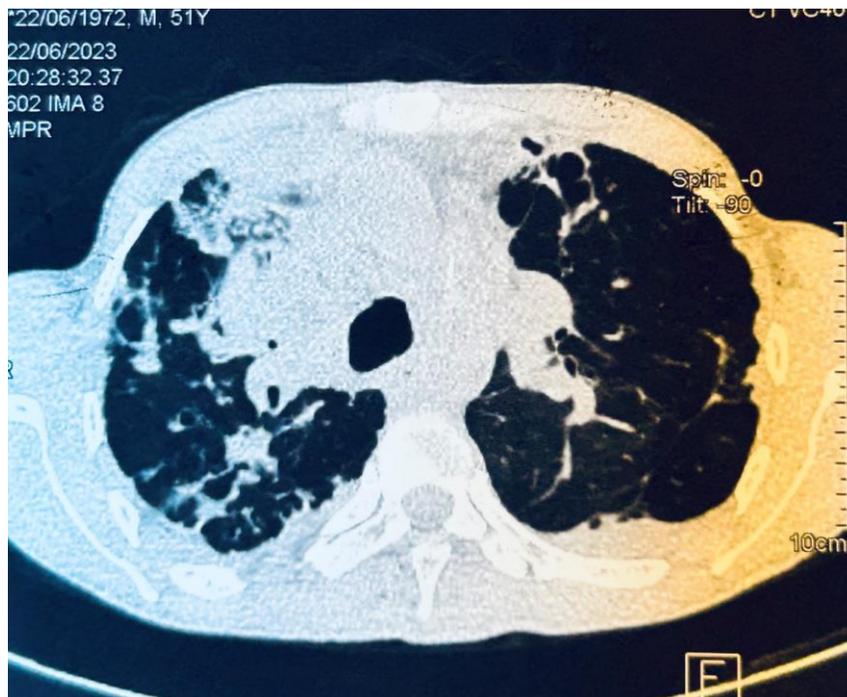


Fig. 2

REFERENCES

1. Jaafari, A., Nedja, F., Boukhriss, B., Ehlem, B., Moez, T., & Habib, B. M. (2009, April). Embolie pulmonaire hydatique fatale. À propos de deux observations. In *Annales de Cardiologie et d'Angéiologie* (Vol. 58, No. 2, pp. 125-128). Elsevier Masson.
2. Morar, R., & Feldman, C. (2003). Pulmonary echinococcosis. *European Respiratory Journal*, 21(6), 1069-1077.
3. Drira, I. & Fennira, H. (2000). Embolie pulmonaire hydatique: à propos de deux cas. *Rev Pneumol Clin* .56:41.
4. Thameur, H., Abdelmoula, S., Chenik, S., Bey, M., Ziadi, M., Mestiri, T., ... & Chaouch, H. (2001). Cardiopericardial hydatid cysts. *World journal of surgery*, 25(1), 58-67.
5. Ghrairi, H., Khouadja, M. A., Abouda, M., Ammar, J., Hantous, S., Kilani, T., & Hamzaoui, A. (2005). Kyste hydatique du cœur et des vaisseaux, 4 observations. *La Presse Médicale*, 34(2), 101-104.
6. Rabah, A., & Belhabib, D. (2003). L'embolie pulmonaire hydatique. *Rev maladies respir*, 20, 166-168.
7. Menassa-Moussa, L., Braïdy, C., Riachy, M., Tabet, G., Smayra, T., Haddad-Zebouni, S., ... & Aoun, N. (2009). Une hydatidose diagnostiquée à l'occasion d'une embolie pulmonaire. *Journal des Maladies vasculaires*, 34(5), 354-357.