Anaphylaxis following a pleural puncture bringing back a rock water-like liquid

Anaphylaxie suite à une ponction pleurale ramenant un liquide d'aspect eau de roche

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Résumé

Introduction : L'anaphylaxie est une urgence médicale mettant en jeu le pronostic vitale. Sa survenue en milieu hospitalier doit évoquer en premier lieu une allergie médicamenteuse ou une allergie au latex. Cependant d'autres diagnostics différentiels ne doivent pas être méconnus. Nous rapportons un cas clinique afin de mettre l'accent sur un diagnostic différentiel de l'allergie médicamenteuse à savoir l'écchinoccocose compliquée

Cas clinique : Il s'agit d'une patiente âgée de 18 ans sans antécédent pathologique, issue d'un milieu rural, consulte pour une douleur basi-thoracique droite sans autre signe clinique associé et ce depuis 4 mois. Son examen physique a révélé un syndrome pleurétique droit. La radiographie thoracique montrait une opacité pleurale droite. Le patient a eu une ponction pleurale ramenant un liquide ressemblant à de l'eau rocheuse. Cinq minutes après, la patiente a reçu une injection de paracétamol pour soulager la douleur. Trente minutes après, des plaques d'urticaire aux extrémités et une hypotension artérielle étaient apparues. Le diagnostic d'anaphylaxie de grade III a été retenu. Après remplissage vasculaire et administration d'antihistaminiques, l'évolution a été rapidement favorable. Une échographie thoraco-abdominale a montré la présence d'un kyste hydatique hépatique rompu dans la plèvre. Un traitement chirurgical a donc été proposé. Malgré le contact avec des gants en latex et l'administration de paracétamol après la chirurgie, le patient n'a présenté aucune réaction allergique. Ainsi la cause retenue de l'anaphylaxie était une ecchinoccocose compliquée.

Conclusion : Une anaphylaxie faisant suite à une ponction pleurale ramenant un liquide d'aspect eau de roche doit faire évoquer une écchinoccocose compliquée.

Mots clés : Anaphylaxie, allergie, kyste hydatique, ecchinoccocus granulosis, ponction pleurale

Abstract

Introduction : Anaphylaxis is a life-threatening medical emergency. Its occurrence in the hospital environment should lead to the first evocation of a drug allergy or a latex allergy. However, many other etiologies need to be investigated early.

We publish this case report to highlight a rare differential diagnosis of drug allergy, namely hypersensitivity caused by Ecchinoccocus granulosis.

Clinical case : An 18-year-old female patient with no previous pathological history, from a rural environment, consulted for a 4-month history of right basi-thoracic pain without any other associated clinical sign. Her physical examination revealed a right pleuritic syndrome. Chest radiograph showed a right pleural opacity. The patient had a pleural puncture bringing back a rocky water-like fluid. Five minutes later, the patient had an injection of paracetamol to relieve the pain. Thirty minutes later, plaques of urticaria on the extremities and trunk and arterial hypotension occurred. The diagnosis of grade III anaphylaxis was retained. Following vascular filling and administration of antihistamines, the evolution was rapidly favorable. The thoraco-abdominal ultrasound showing the presence of a ruptured liver hydatid cyst in the pleura. A surgical treatment was thus proposed. Despite contact with latex gloves and the administration of paracetamol after surgery, the patient did not present any allergic reaction. Thus the retained cause of the anaphylaxis was ecchinoccocus granulosis.

Conclusion: Anaphylaxis following a pleural puncture bringing back a rock water-like liquid must suggest the diagnosis of complicated hydatic cyst.

Key words: Anaphylaxis, allergy, hydatic cyst, ecchinoccocus granulosis, pleural punction

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INTRODUCTION

Anaphylaxis is a life-threatening medical emergency. Its occurrence in the hospital environment should lead to the first evocation of a drug allergy or a latex allergy. Indeed, drug allergy is responsible for 20% of anaphylaxis from all causes and latex for 4% (1). However, many other etiologies need to be investigated early. We publish this case report to highlight a rare differential diagnosis of drug allergy, namely hypersensitivity caused by Ecchinoccocus granulosis.

CASE REPORT

An 18-year-old female patient with no previous pathological history, from a rural environment, consulted for a 4-month history of right basi-thoracic pain without any other associated clinical sign. Her physical examination revealed a right pleuritic syndrome. Chest radiograph showed a right pleural opacity (Figure 1). The patient had a pleural puncture bringing back a rocky water-like fluid. Five minutes later, the patient had an injection of paracetamol to relieve the pain. Thirty minutes later, plaques of urticaria on the extremities and trunk and arterial hypotension occurred (Figure 2). The diagnosis of grade III anaphylaxis was retained. Following vascular filling and administration of antihistamines, the evolution was rapidly favorable. The appearance of the pleural fluid led to a thoraco-abdominal ultrasound showing the presence of a ruptured liver hydatid cyst in the pleura (Figure 3). A surgical treatment was thus proposed for this complicated hydatid cyst. Despite contact with latex gloves and the administration of paracetamol after surgery, the patient did not present any allergic reaction. Thus the retained cause of the anaphylaxis was ecchinoccocus granulosis.

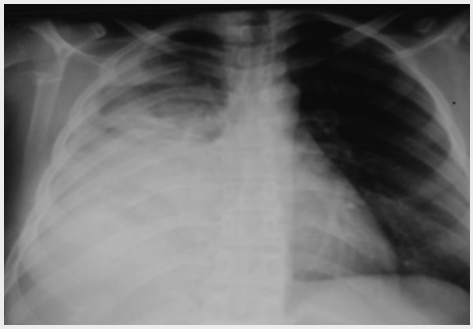

Figure 1. Chest X-ray: Dense, homogeneous opacity, erasing the dome and filling the right cul de sac. This opacity is located the lower 2/3 of the right lung field and suggests right pleural effusion.

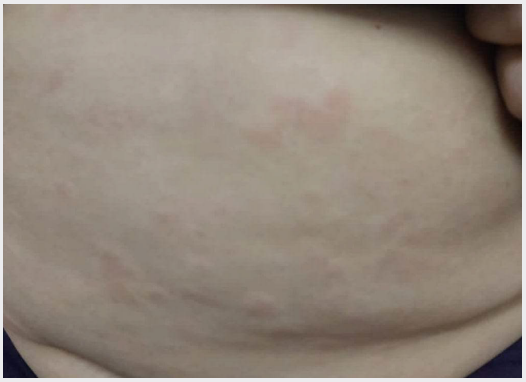

Figure 2. Urticaria in abdominal wall

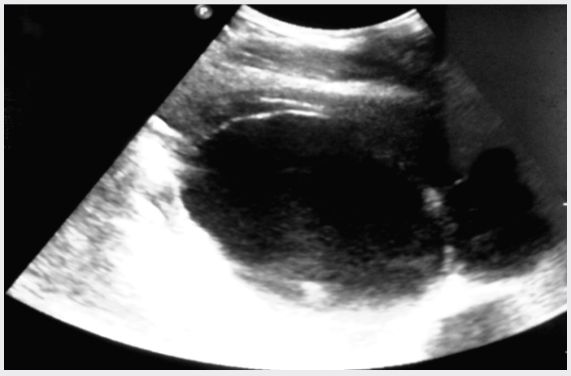

Figure 3. iThoracic ultrasound: Rounded lesion in the liver, anechoic appearance and posterior enhancement with multiple vesiculations. This aspect evokes a hydatid cyst of the liver.

DISCUSSION

Echinococcosis is a zoonosis that can affect humans accidentally. It predominates in South America, the Middle East, China and sub-Saharan Africa. The mode of transmission is fecal-oral from dog-related species infected by herbivores (2). This explains the occurrence of this disease in young subjects living in rural areas. This is the case of our patient. Hydatid larvae often develop in the liver and lung to form cysts whose contents often have a rocky appearance (3). Pleural hydatid localization is rare and is often secondary to dissemination after rupture of the liver or lung cyst. Hydatid antigen is known to be highly allergenic. Several cases of anaphylactic shock have been reported following rupture of a hydatid cyst (4). In our patient, pleural puncture would have brought the hydatid antigen into contact with the immune cells of the chest wall

and was the cause of the onset of the anaphylactic shock.

Hydatid antigen is known to be highly allergenic. Several cases of anaphylactic shock have been reported following rupture of a hydatid cyst (4). In our patient, pleural puncture would have brought the hydatid antigen into contact with the immune cells of the chest wall and was the cause of the onset of anaphylaxis. Thus, the occurrence of anaphylaxis after a pleural puncture with a rock water liquid should lead to an urgent search for complicated echinococcosis which is considered as a medical-surgical emergency (5). Thoraco-abdominal ultrasound before pleural puncture of pleurisy in a young patient of rural origin residing in a hydatid endemic country is strongly recommended.

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