



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Asian Pacific Journal of Tropical Biomedicine

journal homepage: www.elsevier.com/locate/apjtb



Document heading

©2015 by the Asian Pacific Journal of Tropical Biomedicine. All rights reserved.

Endogenous endophthalmitis and liver abscess syndrome secondary due to *Klebsiella pneumoniae*: report of three cases from Qatar

Ahmed AR Mohamad Al Ani^{1*}, Abdel-Naser Elzouki¹, Ali Rahil¹, Fouad Al-Ani²

¹Departments of Medicine, Hamad General Hospital, Hamad Medical Corporation, Weil Cornell Medical College, Doha, Qatar

²Accident and Emergency, Hamad General Hospital, Hamad Medical Corporation, Weil Cornell Medical College, Doha, Qatar

PEER REVIEW

Peer reviewer

Dr. Hirokazu Kimura, Professor/Head, Infectious Disease Surveillance Center, National Institute of Infectious Diseases; School of Medicine, Yokohama City University,
Tel: +81-42-848-7133
Fax: +81-42-565-3315
E-mail: kimhiro@nih.go.jp

Comments

Some clinical findings of the study may contribute to diagnosis of endogenous endophthalmitis and liver abscess syndrome due to *K. pneumoniae*.
Details on Page 58

ABSTRACT

Endogenous endophthalmitis is a rare but devastating disease that may frequently result in visual loss despite appropriate and early antibiotic treatment. Recent reports have suggested an increased incidence of endogenous endophthalmitis in East Asia, particularly in Taiwan, where the major source of infection has been liver abscess secondary to *Klebsiella pneumoniae*. Here we report three cases who presented in Qatar with severe endogenous endophthalmitis associated with *Klebsiella pneumoniae* septicemia secondary to pyogenic liver abscess in a diabetes mellitus underlying.

KEYWORDS

Endogenous endophthalmitis, *Klebsiella pneumoniae*, Liver abscess

1. Introduction

Klebsiella pneumoniae (*K. pneumoniae*) is an important cause of community and nosocomial-acquired infection worldwide[1]. It most frequently causes infection in hospitalized patients and occurs primarily in those with impaired host defenses, including patients with diabetes mellitus, alcoholism, malignant neoplasm, and immunosuppressive therapy[2]. It is, however, an uncommon cause for community-acquired infections in individuals without any underlying predisposing medical conditions[3].

Endophthalmitis is a severe inflammation of the internal coats of the eye. It can be caused exogenously by introduction of contaminating microorganisms via penetrating trauma or surgery, or endogenously via hematogenous spread from infected distant

sites. Patients with impaired host defense mechanisms, including those with diabetes mellitus, are more prone to this complication[4]. Different etiologic microorganisms including bacteria and fungi have been found to cause endophthalmitis. In patients with diabetes mellitus, *K. pneumoniae* is the most prevalent microorganism[5]. Endogenous endophthalmitis is a rare but devastating disease that may frequently result in visual loss despite appropriate and early antibiotic treatment.

Recent reports suggest that the incidence is increasing in East Asia, particularly in Taiwan, where the major source of infection has been liver abscess secondary to *K. pneumoniae*[5-7]. In recent years, cases have been reported from Europe and USA indicating global dissemination of these strains affecting both Asian and non-Asian patients[5,8-11].

*Corresponding author: Ahmed AR Mohamad Al Ani, MBChB, FRCP (Glasg), Sr. Consultant of medicine, Department of Medicine, Hamad Medical Corporation, P. O. Box 3050, Doha, Qatar.
Tel: +974 44392489
E-mail: ahmda@yahoo.com
amohamadi@hmc.org.qa

Article history:
Received 25 Apr 2014
Received in revised form 10 Jul, 2nd revised form 14 Jul 2014
Accepted 8 Sep 2014
Available online 31 Oct 2014

Here we report three cases who presented in Qatar with severe endogenous endophthalmitis due to *K. pneumoniae* septicemia secondary to pyogenic liver abscess in a diabetes mellitus underlying.

2. Case reports

2.1. Case 1

A 47-year old Filipino male who was previously presented with one month history of productive cough with yellowish and occasionally blood stained sputum associated with fever, headache, left sided pleuritic chest pain, and right eye pain and redness with decrease vision over the last two weeks. He also admitted having lower abdominal pain with dysuria, nausea and vomiting. He had no history of recent travel abroad. There was no relevant family or occupational history. On examination, he was febrile (39.3 °C), blood pressure was 107/65 mmHg, and pulse was in sinus rhythm with a rate of 110 beats per minute. His oxygen saturation was 95% on room air. General examination was unremarkable apart from right eye congestion with pus in the anterior chamber and loss of vision; findings were consistent with symptom of endophthalmitis. However, the left eye was normal. Chest examination revealed left basal coarse crackles. Abdominal examination revealed tender palpable liver 16 cm below costal margin.

Laboratory investigations revealed white cell count 22.3×10^3 cells/mm³ (normal range: $4-10 \times 10^3$ cells/mm³), hemoglobin 14.3 g/dL (normal range: 13-17 g/dL), platelets 79×10^3 per cubic millimeter (normal range: $150-400 \times 10^3$ per cubic millimeter), erythrocyte sedimentation rate 90 mm/h, random blood glucose concentration 23.4 mmol/L (normal range: 3.3-5.5 mmol/L), glycosylated hemoglobin (HbA_{1c}) 11.5%, negative ketone bodies in the blood, serum sodium (Na) 125 mmol/L (normal range: 135-145 mmol/L), serum chlorine (Cl) 94 mmol/L (normal range: 96-110 mmol/L), serum potassium (K) 3.9 mmol/L (normal range: 3.6-5.1 mmol/L), corrected serum calcium (Ca) 3.06 mmol/L (normal range: 2.1-2.6 mmol/L), blood urea 8.7 mmol/L (normal range: 1.7-8.3 mmol/L), creatinine 87 μmol/L (normal range: 62-124 μmol/L), total serum protein 55 g/L, albumin 29 g/L (normal range: 35-50 g/L), total bilirubin 51 μmol/L (normal range: 3.5-24 μmol/L), alkaline phosphatase (ALP) 226 IU/L (normal range: 40-129 IU/L), alanine aminotransferase (ALT) 34 IU/L (normal range: <40 IU/L), aspartate transaminase (AST) 18 IU/L (normal range: <40 IU/L), C-reactive protein 328 mg/L (normal range: <5 mg/L), parathyroid hormone 89 pg/mL (normal range: 15-65 pg/mL), and normal serum cortisol level (614 nmol/L) as well as lipid and coagulation profiles. Blood film revealed marked neutrophilic leukocytosis with toxic neutrophils and few reactive lymphocytes. Chest X-ray showed multiple bilateral cavitory lesions in the right upper and middle lung zones and left middle and lower lung zones (Figure 1). Blood cultures showed Gram-negative bacilli (*K. pneumoniae*). Sputum examinations for acid-fast bacillus were negative. Urine microscopy was remarkable only for white blood count 370 leukocytes/μL and the urine culture reported on growth in

48 h. Serology for HIV and viral hepatitis B and C were negative.

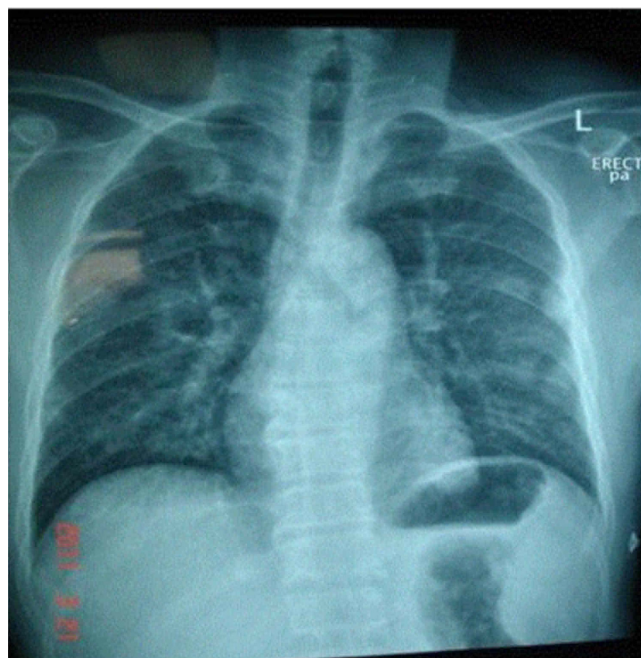


Figure 1. Chest X-ray showed multiple bilateral nodular lesions in the right upper and middle lung zones and left middle and lower lung zones.

Abdominal ultrasound showed an ill-defined echogenic mass sized 5 cm×4.6 cm in the right liver lobe and another one of 2.7 cm ×2.5 cm caudal to the first lesion. CT scan for chest and abdomen showed bilateral pleural effusion with multiple opacities in lungs and findings consistent with symptom of liver abscess and small prostate abscess (Figure 2).

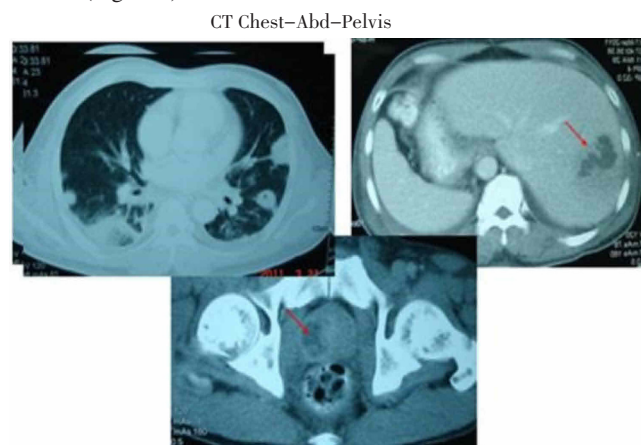


Figure 2. CT scan for chest and abdomen showed bilateral pleural effusion with multiple opacities in lungs, enlarged mediastinal lymph node as well as findings consistent with liver abscess and small prostate abscess.

The patient was stabilized with ertapenem intravenously for 16 d, the right eye vision was lost. Hypercalcemia was resolved and serum calcium returned back to normal level. Nuclear scan of the neck revealed small ectopic area of abnormal uptake in the right upper mediastinum, and the patient was reluctant to accept surgical intervention.

2.2. Case 2

A 48-year old Filipino male with a history of diabetes mellitus

Download English Version:

<https://daneshyari.com/en/article/2032553>

Download Persian Version:

<https://daneshyari.com/article/2032553>

[Daneshyari.com](https://daneshyari.com)