



A Case of Raoultella Planticola Pneumonia as A Complication of Retroperitoneal Abscess in Immunocompetent Patient

Adel Abdelhamy, MD

Consultant of Respiratory Medicine
Chest Unit, Internal Medicine Department,
Jaber Al Ahmad Military Hospital, Kuwait

Fahd Aljaser

Consultant Radiology, Radiology Department,
Jaber Al Ahmad Military Hospital, Kuwait

Ahmed Zayed

Consultant of Surgery, Surgical Department,
Jaber Al Ahmad Military Hospital, Kuwait

Dina Hetata

Clinical Microbiology Specialist, Laboratory Department,
Jaber Al Ahmad Military Hospital, Kuwait

ABSTRACT

Raoultella Planticola (R. Planticola) is a gram-negative bacillus with much similarity to Klebsiella, it is a rare cause of Pneumonia. rare cases have been reported with R. Planticola like abscess pancreatitis and necrotizing fasciitis. To our knowledge we report the first case of Raoultella Planticola retro peritoneal collection complicated by Raoultella Planticola Pneumonia in Kuwait.

Keywords: Raoultella Planticola Pneumonia, Rare lung infection in immunocompetent Patient

INTRODUCTION

R. Planticola is a gram negative aerobic non-capsulated motile bacillus related to a genus of Klebsiella (1). It is reported primarily with immunocompromised patients. It can infect various organs like skin, liver, and gall bladder. We present to our knowledge the first case of human infection with Raoultella Planticola in immunocompetent Patient.

CASE

A 54-year-old patient, ex-smoker who presented to our hospital with palpitation, abdominal pain and cough. his vital signs were as follows: temperature ;37.3 degree centigrade, pulse 100/m, oxygen saturation 96% and blood pressure was 130/80. Laboratory investigations revealed mild leukocytosis (12,000 W.B.C.s) and anemia (8.6 g/dl.). Radiologically, Ultrasound abdomen showed right sided abdominal collection, CT abdomen revealed evidence of retro peritoneal collection. Abdominal catheter was inserted to drain the collected fluid and drained

around 2 L of pus. X-ray chest (figure 1) revealed right lower zonal opacity. We started tazocin 4.5 gm TDS empirically.

The fluid was investigated and *R. Planticola* was isolated. Bronchoscopy done for Bronchoalveolar lavage (BA) and to rule out peritoneal – pulmonary fistula where methylene blue was injected, however no dye appeared in the bag connected to the abdomen. BAL revealed *Raoultella Planticola* organism as well. It was sensitive to B Lactams. We continued Tazocin as arranged and the patient improved and the collection drained completely.

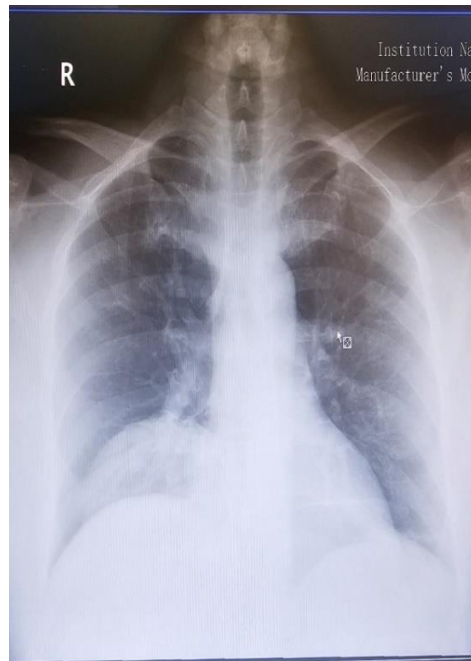


Figure 1: x ray chest with right lower lung opacity in the right lower zone.

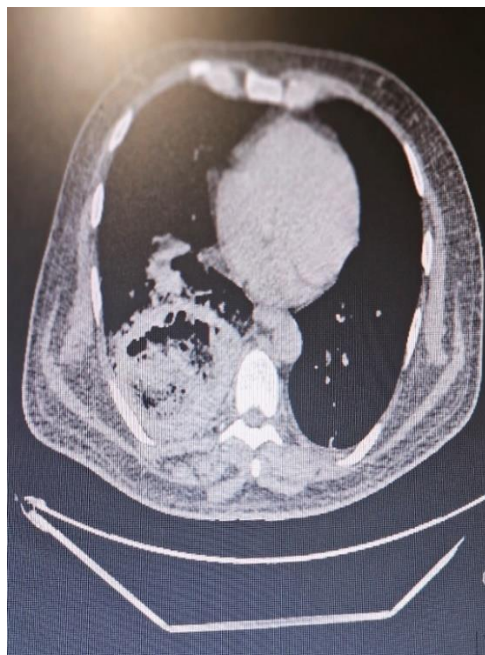


Figure 2: HRCT revealed right lower lobe abscess formation.

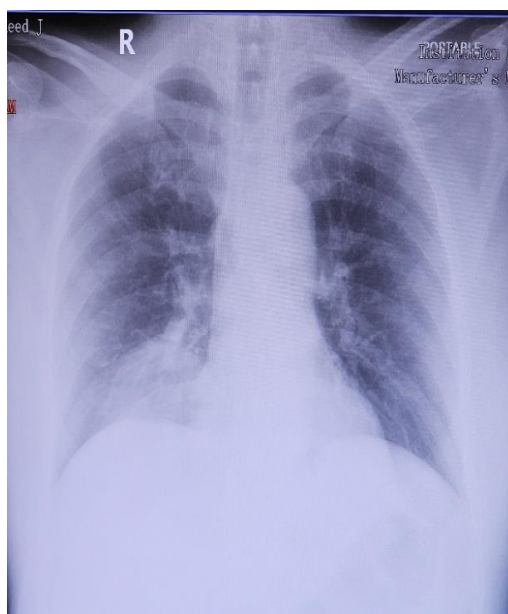


Figure 3: improvement of opacification after 6 weeks of treatment.

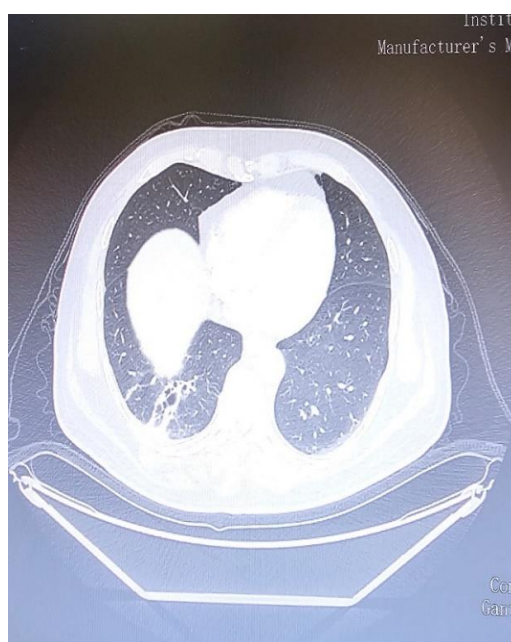


Figure 4: CT revealed reduction in the size of the abscess after 6 weeks of treatment.

However, the CT chest (figure 2) revealed abscess formation in the right lower lobe. We shifted to Augmentin 1 gm B.D. and continued for 6 weeks with much improvement. Bronchoscopy done for the second time for BAL and R. Planticola isolated. We continued Augmentin for more 2 weeks. X ray (figure 3) and CT chest (figure 4) revealed reduction in the size of the abscess to 75% of its original size after 8 weeks of Augmentin treatment with clinical improvement and elevation of Hb to 12 g/dl.

DISCUSSION

Despite the rare infection with R. Planticola, the risk factors associated with infection are the immunocompromising diseases (2). Our patient is immunocompetent with frequent sea food

consumption. He denied gardening or any soil contact in which the organism lives in equative botanical soil. Although, *Raoultella Planticola* is related to *Klebsiella* species there are many differences which include utilization of L-sorbose as a carbon source and the ability to grow on 10 degrees centigrade, which means it can grow in a very low temperature specially in raw, iced sea food. *R. Planticola* may be prevalent with colonization rates ranging from 9 to 19%. (3). In our report, the cause of retroperitoneal abscess was *R. planticola*. our patient has complicated by lung abscess with severe infection. He received 8 weeks treatment with Augmentin with successful results, nevertheless, in immunocompromised patients it may be fatal and the treatment would be difficult because of rise in antibiotic resistance and the toxicity related to the longer use of antibiotics (4).

CONCLUSION AND RECOMMENDATIONS

To our knowledge, We report the first case of *R. Planticola* in Kuwait. Our patient risk factor was only consumption of sea food which may be under cooked.

R. Planticola may be fatal in immunocompromised patients and may be prevalent than we suggest. Prevention is the main way strategy to avoid the deadly organism specially in immunocompromised patients by avoiding gardening and raw sea food consumption (5). We sound the alarm of the risk of this organism in our environment and encourage more researches in the future.

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