

Magnusiomyces Capitatus : A Rare Cause of Pneumonia

Pnömoninin Nadir Bir Nedeni: Magnusiomyces Captatus

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ABSTARCT

Pneumonia is an important cause of morbidity and mortality in elderly patients. *Magnusiomyces* should be kept in mind as a rare cause of pneumonia, because of high mortality rates (>50%). A 93-year-old male patient was admitted with cough, sputum, confusion and elevated inflamatur markers and diagnosed with pneumonia. *Magnusiomyces capitatus* was detected in tracheal aspirate culture and detection of galactomannan antigen in tracheal aspirate fluid supported the diagnosis. After 10 days of intravenous Amphotericin B therapy pneumonia was improved. Although *Magnusiomyces* has been previously reported in the pleural fluid, we found it in tracheal aspirate culture. We recommend that clinicians should take this agent into account in cases of pneumonia due to high mortality rates.

Key Words: *Magnusiomyces capitatus*, *blastoschizomyces*, *Geotrichum capitatum*, *pneumonia*

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ÖZET

Pnömoni yaşlı hastalarda önemli bir morbidite ve mortalite nedenidir. *Magnusiomyces*, yüksek mortalite oranlarına sahip olması nedeniyle (>% 50), nadir bir pnömoni etkeni olarak akılda tutulmalıdır. Vaka: 93 yaşında erkek hasta öksürük, balgam, konfüzyon ve inflamatur belirteçlerin yüksekliği ile başvurdu ve pnömoni tanısı aldı. Trakeal aspirat kültüründe *Magnusiomyces capitatus* saptandı ve trakeal aspirat sıvısında galaktomannan antijeninin saptanması tanıyı destekledi. 10 gün intravenöz Amfoterisin B uygulanarak pnömoni tedavi edildi. *Magnusiomyces* daha önce plevral sıvıda bildirilmiş, biz ise ilk defa trakeal aspirat kültüründe saptadık. Mortalite oranlarının yüksek olmasından dolayı, pnömoni vakalarında klinisyenlerin bu ajanı göz önünde bulundurmasını tavsiye ediyoruz.

Anahtar Sözcükler: *Magnusiomyces capitatus*, *blastoschizomyces*, *Geotrichum capitatum*, *pnömoni*

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INTRODUCTION

Pneumonia is an important cause of morbidity and mortality in elderly patients (1). As infectious pneumonia may be more likely to be due to bacterial agents, viruses and fungi can also cause pneumonia. *Magnusiomyces capitatus* (teleomorph form of *Saprochaete capitata*, previously named *Geotrichum capitatum*, *Trichosporon capitatum* or *Blastoschizomyces capitatus*) should be kept in mind as a rare cause of pneumonia that is widespread in nature and can colonize skin, respiratory and gastrointestinal tract mucosa (2).

CASE REPORT

A 93-year-old male patient was admitted with cough, sputum and confusion which has started 3 days ago. He had no medical history except diabetes mellitus and stroke. On admission fever 36.7 °C, heart rate 135/minute, blood pressure 120/75 mmHg were measured. There were rales in his physical examination, also there was consolidation at his chest X-ray. His electrocardiography was compatible with atrial fibrillation. His leukocyte, hemoglobin and thrombocyte counts were 11,2x10⁹/l (neutrophil: 9,9x10⁹/l vs. lymphocyte: 0,7x10⁹/l), 13,5 g/dl and 164x10⁹/l, respectively. There were no abnormalities with kidney and liver function tests except sodium levels (154 meq/l). C-reactive protein (CRP) and sedimentation levels were 212 mg/dl and 66 mm/h, respectively. We started empirical intravenous levofloxacin therapy with diagnosis of pneumonia. Consecutive tracheal aspirate cultures revealed *Magnusiomyces capitatus* colonization with increasing colony counts. *M. capitatus* was identified on the basis of colony morphology, microscopic morphology on Corn Meal Tween 80 Agar and MALDI-TOF mass spectrometry (Bruker, Germany)(Figure 1A,B). Detection of galactomannan antigen in tracheal aspirate fluid (0,9 ng/ml) supported the diagnosis. Intravenous Amphotericin B was added to the current treatment and after 10 days of treatment, the patient's CRP and leukocyte levels were decreased. Also hypernatremia was solved too with intravenous liquid repletion. No pathogenic microorganisms were detected in tracheal aspirate culture after the treatment.



Macroscopic appearances of *M. capitatus* colonies on 5% Sheep Blood Agar

Figure 1A: Macroscopic detection of *Magnusiomyces capitatus*



Microscopic appearance of *M. capitatus* on Corn Meal Tween 80 Agar (X40)

Figure 1B: Microscopic detection of *Magnusiomyces capitatus*

DISCUSSION

Magnusiomyces capitatus is a rare pneumonia agent, with a high mortality rate (>50%) (3). Although it has been previously reported in the pleural fluid, we found it in tracheal aspirate culture (4). Because of its high mortality rates we recommend that clinicians should take this agent into account, especially in cases of pneumonia that does not respond to antibiotic therapy.

Conflict of interest

No conflict of interest was declared by the authors.

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