



## An unusual pediatric case of *Alloiooccus otitidis* Bronchopneumonia

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### ABSTRACT

*Alloiooccus otitidis* is a very unusual cause of bronchopneumonia & very limited data from Asian region is available. We are reporting probably first culture proven case of its association with bronchopneumonia, from India. The infection requires specific treatment based on antibiogram, but as no data from India is known, our case highlights the need of further studies of this uncommon organism in relation to invasive diseases & its antibiotic susceptibility.

**KEYWORDS :** Bronchopneumonia, Otitis media , *Alloiooccus otitidis*

### INTRODUCTION:

Broncho pneumonia is an acute inflammation of the lungs and bronchioles, characterized by chills, fever, high pulse and respiratory rates, bronchial breathing, cough with purulent bloody sputum, severe chest pain, and abdominal distension. The disease is usually a result of the spread of infection from the upper to the lower respiratory tract, most common caused by the bacterium *Mycoplasma pneumoniae*, *Streptococcus pyogenes*, or *Streptococcus pneumoniae*. Atypical forms of bronchopneumonia may occur in viral and rickettsial infections.(1 ) We are presenting here an unusual case of bronchopneumonia due to *Alloiooccus otitidis* which is otherwise related with otitis media & middle ear infection & not reported from Asian region.(2)

### CASE REPORT:

A child was presented with complaints of fever, cough, and cold since 10 days. On examination pallor was detected. Respiratory examination revealed mild crept, other systemic findings were nonspecific. Child was born full term, by caesarean section. Child had history of Pneumonia one year back. Patients blood culture was sent which was positive for *Alloiooccus otitidis*. Identification & antibiotic susceptibility test was done by Vitek II system by bioMerieux. The isolate was sensitive to Gentamicin

( MIC <= 0.5), Levofloxacin (MIC= 2), Tigecycline(MIC <= 0.12) , Trimethoprim /Sulfamethoxazole (MIC <= 10). Resistance was seen to Benzylpenicillin(MIC>=0.5), Erythromycin(MIC >=8), Clindamycin,

( MIC=4), Quinopristine/Dalfopristine (MIC>=16), Rifampicin (MIC >=32). Child was treated with Injection Ceftriaxone 400 mg IV BD for 5 days & Injection Amikacin 600 mg IV BD for 5 days as sensitivity was seen to aminoglycoside class of antibiotics by Vitek panel. Child was symptomatically relieved so discharged without any further sequale.

### DISCUSSION:

*Alloiooccus otitidis* belongs to Family Carnobacteriaceae.(3 )It does not grow at 450C or in anaerobic conditions. Biochemical characteristic are as follows, Acid not produced from Glucose, Aesculin not hydrolysed & Hippurate not hydrolysed. Pyrolydonyl amyliandase &hippurate test are positive.(2 )It is a slow growing (2 ) organism. Isolated first from Middle ear. The study involving 145 subjects showed it to be part of Nasopharynx & outer ear canal. It is commonly isolated from otitis media cases with effusion.(2,6,5) The study conducted in Australian children showed it to be associated with chronic otitis media with effusion & it to be sensitive mainly to penicillin, tetracycline, vancomycin. All the cases were resistant to gentamicin. But our isolate was sensitive to it. As it is hardly reported from Asian region (5), no standard treatment could be formatted. The same study showed resistance to Erythromycin, 55% of isolates (11/20), Clarithromycin resistance 30% isolates (6 isolates) Azithromycin 45% (9 isolates) were resistant. But susceptibility to Amoxicillin, Tertracyclin, Cotrimoxazole was reported in different studies (2).Invasive spectrum also includes Endocarditis(4). As difficult to culture & commonly detected by molecular techniques data is limited. No standard guidelines are available for treatment & procedure for antibiotic susceptibility reports .Its potential to cause invasive infection reinforces further documentation & study .

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