# Bacterial Pathogens Associated with Community-acquired Pneumonia

We read with much interest the recent article in *Indian Pediatrics* by Das, *et al*. [1], and have the following comments to offer:

1. The authors mention that "in cases of *S. pneumoniae*, *K. pneumoniae* and *S. aureus*, all cases detected by PCR analysis of the respiratory samples were also detected by culture." Authors have not provided the number or proportion of cases detected by PCR and culture. The bacterial load and antibiotic sensitivity of the culture positive cases would have contributed to the existing knowledge.
2. The use of oropharyngeal aspirate as the sample for isolation of bacterial pathogens associated with community acquired pneumonia (CAP) raises many questions. This is again highlighted by the isolation of organism like *Acinetobacter* and *Citrobacter* species from CAP cases. The value of isolating bacterial organisms that are frequently detected in the upper airways of children (eg, *Streptococcus pneumoniae, Haemophilus influenzae, Staphylococcus aureus*) are questionable. Nevertheless, had the authors provided the serotypes of the pneumococcal isolates, the presence of serotypes that are rarely found in the upper respiratory tract but are well recognized causes of invasive disease (eg, serotype 1), may have been highly predictive of pneumococcal pneumonia [2].
3. There is no mention whether the children had any pre-existing respiratory morbidity, as chronic respiratory diseases would significantly influence the bacterial flora.
4. The authors did not mention whether the children received antibiotics prior to sampling. Stralin, *et al*. [3] demonstrated that use of antibiotics decreased the yield of culture for *S. pneumoniae* significantly compared to PCR.
5. The conjugate *H. influenzae* vaccine is known to decrease the nasopharyngeal carriage of the organism [4], and many of these children might have received this vaccine as per latest National Immunization Schedule. As all the *H. influenzae* isolates were 'non type b', the data on H influenzae immunization status of the children would have been interesting.
6. Nasopharyngeal carriage of *S. pneumoniae* has been used as a surrogate marker for invasive disease in children with pneumonia [5]. The data on treatment received by the children and their outcome would have enlightened the readers about the clinical usefulness of the isolates in the absence of a positive blood culture.

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# Bacterial Pathogens Associated with Community-acquired Pneumonia : Author's Reply

We offer the following comments in response:

1. All the cases of *S. pneumoniae (n=32), K. pneumoniae (n*=23*)* and *S. aureus (n=15)* were detected by both PCR analysis and culture of the respiratory samples. In conventional PCR, bacterial load estimation was not possible. Antibiotic sensitivity testing was not intended in this study.
2. The limitation of oro-pharyngeal swab sampling was already mentioned in the article. Although organisms like *Streptococcus pneumoniae, Haemophilus influenzae, Staphylococcus aureus* are frequently detected in the upper airways, these organisms were considered as causative agents only when these were isolated in significant count with the absence of growth of other commensal organisms.

3. No child had any chronic respiratory disease.
4. Sample collection of the cases was done following admission to the hospital and initiation of the investigation procedure. The first dose of empirical antibiotic therapy was already administered.
5. We admit the limitation of missing immunization history against *Haemophilus influenzae* B.
6. Follow-up of the patients as regarding the treatment course was not carried out in this study.

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# Rubinstein-Taybi Syndrome with Psychosis

Rubinstein-Taybi syndrome is characterized by a broad thumb and bulbous hallux, short stature, intellectual disability and distinctive facial features [1]. It is a rare neuro-developmental disorder with a reported prevalence of 1 in 1,25,000 births [2]. Psychosis in RTS is highly infrequent with only a few scattered case reports [3]. A comprehensive literature search yielded only one case report of non-affective psychosis [4].

A 15-year-old girl was admitted to our department with spells of irritability and aggression for last 20 days. These episodes were accompanied by abnormal behavior like singing aloud and pacing. She appeared fearful, and was clinging to her mother. Upon detailed evaluation, there were no well- formed delusions and no clear-cut affective component could be distinguished. Therefore, a diagnosis of non-affective psychosis (Hallucinatory psychosis; ICD F28) was made. Behavioral problems were rated on the Brief Psychiatric Rating scale for Children (BPRS-C) on admission and 6 weeks later on follow-up.

Clinical examination showed short stature, with a height of 129 cm (below 50$^{th}$ percentile). The thumbs were broad and flattened, as were the terminal phalanges of the other digits. The great toes were short and bulbous. There was microcephaly and typical facies, with a low hairline, hypertelorism, bushy eyebrows, broad nose and open mouth. Thoraco-lumbar scoliosis was noted. Muscle tone was low globally. Multiple keloids were present over the left scapular region and popliteal regions of both knees. Findings were consistent with a diagnosis of Rubinstein-Taybi syndrome.

Investigations revealed normocytic hypochromic anemia. MRI spine showed thoraco-lumbar scoliosis and decreased vertebral height. Intelligence Quotient on Binet-Kamat test gave a score of 57, indicating mild intellectual disability. Cytogenetic analysis by Giemsa showed a normal karyotype (46, XX). The patient was started on Quetiapine and recorded a reduction of more than 50% in BPRS-C scores at 6 weeks on a dose of 50 mg, indicating significant response to therapy.

The association of psychosis with Rubinstein-Taybi syndrome is rare and only a handful of cases have been reported in literature. A novel study from Japan determined that variation in the promoter region of the same *CREB* gene may modify gene expression and contribute to schizophrenic psychosis [5]. The rare co-occurrence of psychosis in this syndrome thus opens up a narrow window of opportunity to identify the common genetic changes that result in this combined phenotypic manifestation. This, in turn, may generate fresh insight into the genetic markers of childhood psychosis.

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