

**Conclusions:** This study shows that Nonfermenters are isolated from clinical specimens frequently and are resistant to most of the routinely used antibiotics showing that these organisms need to be taken seriously and identified and not just regarded as contaminants.

**Key words:** Nonfermenters, pus/woundsite swab, clinical isolates.

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**Aims & Objective:** The pathogenicity of *Pseudomonas* and infections of the sinuses and respiratory tract is now well recognized. The high frequency of multiple resistances among *Pseudomonas* strains causes higher morbidity and mortality making its eradication difficult. The present study was designed to determine the antimicrobial resistance of *Pseudomonas spp.* isolated from patients with LRI by disc diffusion method.

**Materials & Methods:** The study included early morning sputum samples collected from 112 hospitalized patients with LRI from March 2009 – July 2009. Samples were processed and identified according to standard protocol. The *Pseudomonas spp.* isolates were tested for antibiotic resistance against 15 currently used antibiotics by Kirby Bauer disc diffusion.

**Results:** IN the present study a high degree of multidrug resistance was seen amongst *Pseudomonas* isolates. Amongst the antibiotics tested highest resistance was seen for mezlocillin and cefotaxime (88%) folowed by ticarcillin (75%) and ceftazidime, (71%),intermediate resistance was seen towards azlocillin(46%) and ceftriaxone(42%).

Highest sensitivity was seen towards ofloxacin (4%) and imipenem (8%), ciprofloxacin (8%)and gentamicin (8%).

**Conclusion:** In the present study, fluoroquinolones like ciprofloxacin , ofloxacin and imipenem (carbapenem), gentamicin (aminoglycoside) seemed to be effective against the *Pseudomonas* isolates from patients with LRI from Chennai.

**BP-42** EFFECTIVE ELIMINATION OF DRUG RESISTANCE GENES IN PATHOGENIC *PSEUDOMONAS AERUGINOSA* BY ANTIPSYCHOTIC AGENT THIORIDAZINE

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**Aims & Objectives:** *Pseudomonas aeruginosa* is a serious threat in clinical medicine since most isolates are resistant simultaneously to many antibiotics at very high levels. Elimination of these resistances by known pharmacological compounds would be advantageous for successful treatment of infections caused by this bacterium.

**Methods:** Resistances to antibiotics and thioridazine were determined in 25 *Pseudomonas aeruginosa* strains including ATCC 27853 following CLSI (2006). Elimination or curing of antibiotic resistances was recorded in thioridazine treated strains. Agarose gel electrophoresis was carried out with DNA isolated from wild type and cured strains.

**Results:** All 25 strains were multiply resistant to many antibiotics including several  $\beta$ -lactams, cephalosporins, aminoglycosides, fluoroquinolones; however, carbenicillin was the only drug whose resistance levels were much lower. Since *Pseudomonas* plasmids are fairly large in size, plasmid DNA isolation by normal alkaline lysis process was ineffective. Application of Qiagen kit for isolation of large plasmids (>10Kb) combined with a manual procedure successfully revealed presence of plasmid bands in wild type strains in agarose gel electrophoresis. Such bands were absent in a few thioridazine treated cured clones.

**Conclusion:** Carbenicillin is still highly effective against *Pseudomonas aeruginosa*, while antipsychotic drug thioridazine is a potent agent able to eliminate drug resistance plasmids, which are much larger than plasmids of other Gram negative bacteria. Since many antibiotics are administered together to patients suffering from infections caused by *Pseudomonas aeruginosa*, simultaneous application of the curing agent thioridazine to such patients may open up a new arena of therapy for such patients.

**BP-44** SPOTTED FEVER RICKETTSIOSIS IN CHILDREN: SEROLOGICALLY CONFIRMED CASES AT KOLAR.

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**Background and objectives:** Rickettsiosis is considered as an emerging infectious disease. Many children who present with rickettsial fever and rash go undiagnosed. We report here serologically confirmed spotted fever Rickettsiosis from Kolar region during the cold months of January and February 2009.

**Materials and Method:** Five children aged between 11 months to 3 years were admitted to R L Jalappa Hospital with fever and rash. Two of them also had features of meningial involvement. All patients had hepatosplenomegaly and a characteristic maculo-papular rash all over the body including palms and soles. A Weil- Felix test was performed on 4 of 5 samples and all the samples were subjected to Ig M ELISA for scrub and spotted fever group of rickettsial agents.

**Results:** The Weil- Felix test showed high titres( >320) against OX 19, and OX 2 antigens in all the 5 patients; titres against OX K antigen were negligible. Convalescent sera were obtained in 2 patients: one of them showed a four fold rise and high titres

**BP-43** ANTIMICROBIAL RESISTANCE OF *PSEUDOMONAS SPP.* ISOLATED FROM PATIENTS WITH LOWER RESPIRATORY TRACT INFECTION IN CHENNAI