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**Original article:**

**Surveillance of Pseudomonas in COPD patients in a tertiary care hospital**

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**Abstract:**

**Background and objective:** Chronic pulmonary disease is increasing day by day due to lifestyle of general population. Smoking and air pollution are important factors. The present study was carried out to know the bacteriological profile of such cases.

**Materials & Methods**: A total of 64 patients suffering with COPD were included in this study. Purulent sputum was collected from all the patients and subjected to routine bacteriological study. Culture positive were identified by routine bacteriological methods and antimicrobial susceptibility tests were performed using Kirby-Bauer disk diffusion method, MIC were determined following CLSI guidelines.

**Results:** Out of 64 samples, 51 showed culture positive. Among aerobic bacteria, Pseudomonas was found to be predominant (54.05%) which was immediately followed by Klebsiella (45.94%). Amikacin was found to be effective (90%), followed by Imipenim (85%) and Trimethoprim (85%). The Ureidopenicillin, Piperacillin showed 70% sensitivity. All the strains were resistant to Ampicillin and Co-trimoxazole (100%)

**Interpretation and conclusion:** Antipseudomonal agents Imipenim and Piperacillin were effective though slight resistance was noted. Continuous monitoring of antipseudomonal agents is necessary to combat the development of resistance. Health education regarding smoking and air pollution needs to be strongly implemented.

**Keywords**: Chronic obstructive pulmonary disease, acute exacerbation, Pseudomonas