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Bacterial Spectrum in Endobronchial Obstruction

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Objectives: Endobronchial obstruction disrupts the physiological workings of ciliary activity and changes the endobronchial flora. In our study, we investigated significant correlation between the magnitude of endobronchial obstruction, pathological diagnosis and bacteria species isolated from bronchial lavage.

Methods: We included 92 cases which were performed bronchoscopy for last 3 years at MCBU Chest Diseases Department and had endobronchial obstruction to some extent. 17 of the cases were female (18.5%), 75 were male (81.5%). Bronchial lavage cultures and cytological material were sent in all of these cases. We investigated significant correlation between the age, sex, magnitude of endobronchial obstruction, hospitalized antibiotherapy and outpatient antibiotherapy.

Results: No significant correlation was determined between the magnitude of endobronchial obstruction and culture positivity ($p=0.143$). No significant correlation was determined between endobronchial obstruction and hospitalization ($p=0.438$). No significant correlation was determined between endobronchial obstruction and outpatient antibiotherapy ($p=0.725$). Significant correlation was determined between the magnitude of endobronchial obstruction and culture positive species ($p=0.025$). Only case of culture positive *Moraxella* spp. had constricting lesion. 2 cases of culture positive *Acinetobacter baumannii* had complete endobronchial obstruction. Total 3 cases of culture positive *Klebsiella* spp., 2 had 0-50% and 1 had >50% obstruction. Twenty-six patients had benign (28.3%) and 66 had malignant cytology (71.7%). Significant correlation was determined between pathological diagnosis and culture positivity ($p=0.004$).

Conclusion: In this study, we determined significant correlation between the magnitude of endobronchial obstruction and the positive culture agent; and cytology of the lesion and culture positivity.

Keywords: Endobronchial obstruction, lung cancer, bacterial spectrum