European Respiratory Society
Annual Congress 2012

Abstract Number: 2453

Publication Number: P3980

Abstract Group: 6.1. Epidemiology

Keyword 1: Biomarkers **Keyword 2:** Lung cancer / Oncology **Keyword 3:** Epidemiology

Title: NAT2 gene polymorphism in lung cancer: A study from north India

Dr. Sandeep 18000 Bhattacharya drsbhattacharya@gmail.com MD [1], Mr. Rajnikant 18001 Shukla rickylkw2006@gmail.com [2], Prof. Dr Surya 18002 Kant dr.kantskt@rediffmail.com [2] and Prof. Balraj 18003 Mittal bml_pgi@yahoo.com [3]. [1] Physiology, CSM Medical University, U.P, (Erstwhile KGMC), Lucknow, UP, India, 226003 ; [2] Pulmonary Medicine, CSM Medical University, U.P, (Erstwhile KGMC), Lucknow, UP, India, 226003 and [3] Genetics, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, UP, India, 226003 .

Body: Purpose: This study was conducted to examine: 1) whether the NAT2 genotypes are risk factors for Lung cancer, 2) to study possible association of tobacco smoking with NAT2 genotype of these patients. Materials and Methods: This case control study was undertaken over a period of 19 months and included 100 Lung cancer patients and 145 controls. The NAT2 genotypes were identified by PCR-RFLP method in peripheral blood DNA samples. Genotypes frequencies and the association of the genotypes among patients and controls group were assessed by $\chi 2$ test and Binary Logistic regression. Results: The NAT2 fast acetylator genotype frequency of slow or fast acetylator genotypes was not significant in lung cancer patients alone (OR = 1.18, 95% CI: 0.69 - 2.03, p value = 0.583).in non-smoker (OR = 1.06, 95% CI: 0.43 - 2.64, p value = 0.899) and smoker (OR = 1.32, 95% CI: 0.59 - 2.93, p value = 0.494) when compared with controls. Conclusion: These data demonstrate that the NAT2 fast or slow acetylators genotype did not associated with the risk of developing lung cancer in North Indian population when compared with controls.