Abstract
Objective: Determine the prevalence and compare some genetic markers involved in addictive behavior in a group of addicts to derivative of coca (cocaine/crack) or heroin and a control group of non-addicted people matched for gender, age and ethnicity.
Methods: A 120 addicts and 120 non-addicts Colombian male were surveyed and genotyped for 18 polymorphism of the OPRM1, DRD2, DRD4, SLC6A3, SLC6A4, ABCB1, DH and CYP2B6 genes. For the identification of alleles markers were used mini-sequencing and fragment multiplex PCR techniques; ethnicity of cases and controls was analyzed with 61 AIMs. Results: The age of onset use of heroin or coca derivatives (cocaine/crack) was 16.5±6 years and 99.2% of them consume several illicit drugs. It showed that controls and addicts belong to the same ethnic group. Significant differences between addicts and controls in relation to schooling, marital status, social security family history of substance abuse (p<0.001), Int8-VNTR SLC6A3 gene (p=0.015) and SNP 3435C>T ABCB1 gene (p=0.001) were found. Conclusion: The present results indicate that the VNTR-6R polymorphism of the gene SLC6A3 and the genotype 3435CC in the ABCB1 gene, are both associated with addictive behavior to heroin or cocaine.

Keywords
ABCB1 Protein, SLC6A3 protein, Heroin addiction, Cocaine addiction, Crack-Cocaine.