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Distribution of 5-HT_{2A} T102C polymorphism in apparently healthy caucasian individuals in England and its relationship to smoking habits**Usman I Ali MD***Clinical Teaching Fellow for the Cambridge University, Peterborough City Hospital. Peterborough. PE3 9GZ. UK*

5-hydroxytryptamine (5-HT) is a major monoamine neurotransmitter. It is heavily involved in many physiological and pathological processes in the body including human behaviour, each sub-classes of 5-HT receptors mediates a specific positive or negative consequence. Most studies on 5HT_{2A} T102C polymorphism has been carried out on individuals suffering from various kind of disorders. Therefore, we decided to carry out this study on apparently healthy Caucasian University (Nottingham Trent) students aged 18 to 28. 86 volunteers (47 males and 39 females) took part. They Volunteers were briefed, informed consent obtained, and a and asked to fill a demographic questionnaire filled in anonymously. Blood samples were was taken and genotyped using PCR-RFLP and restriction enzyme method for every volunteer. In this study group, there was a fairly homogenous distribution of genotypes; C102C, T102C and T102T being 38.4%, 34.9% and 26.7% respectively, with C102C genotype being relatively more common. Male genotypes were more homogenous than female genotypes across the board. T102T genotype in females was least common (7%) compared to males (19.8%). 102C allele was found to be more common (55.8%) than 102T allele (44.2%). Genotypes were compared to the smoking history of the individuals. Interestingly, male smokers were equally distributed in C102C, T102C, and T102T genotypes, whereas females with T102C genotypes were more likely to smoke than other genotypes. Overall majority of the participants were non-smokers suggesting 5HT polymorphism was not wholly responsible for behavioural smoking. Limitation noted for the study was its small sample size. or the low sample size failed to provide a statistically significant outcome. Nevertheless, a large-scale study in apparently healthy individuals and its relationship with smoking is recommended.

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