

# The association between cannabis use and testicular germ cell tumor

## Letter to Editor

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Sir,

The prevalence of drug abuse is rising at an alarming rate with cannabis as the most popular drug used in Pakistan. Per the United Nations Illicit Drug Trends Report on Pakistan, cannabis is a drug of choice and the most commonly abused substance since it is cheaply and easily available for recreational purposes.[1] Additionally, the findings of the survey conducted by Bajwa et al to determine Cannabis trends in 2013 revealed approximately 4 million cannabis users in Pakistan.[2] The term Cannabis, also known as marijuana, denotes the variety of psychoactive constituents including d-9 tetrahydrocannabinol derived from the plant Cannabis sativa. It carries a spectrum of psychological and physical manifestations including altered state of consciousness, euphoria, relaxation, and increased appetite.[3] Cannabis is widely used for medical purposes to improve chemotherapy-associated vomiting and nausea, to increase appetite in AIDS/HIV patients, and to treat body pain and muscle spasms. However, there are a variety of adverse side effects associated with cannabis use including confusion and memory loss, delusions, hallucinations along with anxiety, and agitation. Additionally, Chronic bronchitis leading to excessive coughing with the production of sputum and wheezing is a clinical manifestation observed in chronic heavy cannabis smokers. Moreover, the consistent use of cannabis in young adulthood leads to an increased risk of schizophrenia and psychotic symptoms. Andreasson et al in his study reported that the proportion of sample population that consumed cannabis before an age of 18 years was 2.4 times more likely to suffer from schizophrenia than those who had not.[3] The striking findings of very recent meta-analyses conducted by Ghasemiesfe et al. demonstrated an association between the usage of marijuana and the development of testicular germ cell tumors. The three case-control studies pooled evaluated young participants with a mean follow-up period of 6.6 years. The findings of the pooled analysis revealed that

more than 10 years of marijuana use increases the risk of testicular germ cell tumor development by 36% (Odds Ratio, 1.36; 95% CI, 1.03-1.81; p = 0.03; I<sup>2</sup> = 0%). Additionally, sub-analysis according to histological type showed more than 10 years of marijuana use to increase the risk of non-seminoma testicular germ cell tumor development by 85% (Odds Ratio, 1.85; 95% CI, 1.10-3.11; p = 0.04; I<sup>2</sup> = 0%).[4] Since only three studies were pooled, this shows a lack of studies in this area. Therefore, indicating a dire need for studies focusing on the use of cannabis, due to its devastating adverse effects. The important findings of this study cannot be ignored keeping in mind the vast prevalence of cannabis use in Pakistan. Health professionals must inform the general public about the adverse effects and informational brochures be distributed to the general population visiting private and public hospitals in addition to educational awareness sessions to reduce cannabis use in the Pakistani population.

Thank You

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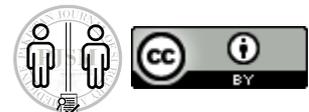
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