



Sexual Dysfunction in Cannabis dependence : A hospital based study

Niranjan Hebbar
Y.R

Junior Resident, Department of Psychiatry, RIMS, Imphal

Dr. Udayan
Majumder

Junior Resident, Department of Psychiatry, RIMS, Imphal, Corresponding author

ABSTRACT

Background - Cannabis has been a part of the recreational and religious ceremonies for years, in India. Although we find many conflicting and controversial studies in this area, we lack studies done on Indian setup to know the detrimental or beneficial effects of this drug on sexual functions.

Aim of the study - To assess the sexual dysfunctions in cannabis dependant individuals at Imphal, Manipur.

Materials and methods - 35 cannabis dependant individuals (ICD-10, F13.25 cannabinoids dependence with continuous use criteria) were assessed for sexual dysfunction using international index for erectile dysfunction-15, on outpatient basis at RIMS, Psychiatry department.

Results- Erectile dysfunction was the highest reported sexual dysfunction and was common in the age group of 31 years and above. Similarly orgasmic dysfunction noted higher in age group >30 years. Sexual desire and overall satisfaction in sexuality as well as satisfaction in intercourse was reduced in the older age group.

KEYWORDS :Cannabis, sexual dysfunction, ICD, erectile dysfunctions, sexual desire

Introduction

Although any kind of use or marketing of marijuana has been illegal according to NDPS act in India, availability and the use of cannabis is not a rare sight to be seen. Cannabis is the most widely cultivated, trafficked, and abused illicit drugs in the world with approximately 147 million people or 2.5% of total population use one or the other forms of cannabis. In the Indian scenario percentage of cannabis use, ever and in the last 30 days was 3.8 and 2.7% . In illicit drugs of abuse cannabis stands at first.¹

There are more than 400 chemical compounds in a cannabis plant. The four main compounds are called delta-9-tetrahydrocannabinol (delta-9-THC), cannabidiol (CBD), delta-8-tetrahydrocannabinol and cannabinol. Except CBD, these compounds are psychoactive, delta-9-tetrahydrocannabinol being the major one.

The Endo-cannabinoid system(ECS) consists of the endogenous endocannabinoid ligands, their congeners, the biosynthetic and hydrolyzing enzymes involved in the metabolism of these ligands, their transporter proteins, and receptors.^{2,3} Endocannabinoids are found to be widely dispersed in human tissues such as the central nervous system, peripheral nerves, spleen, uterus, and testicles.⁴ It must therefore play a role in a number of physiological processes and appears to be deeply involved in the control of reproductive function.⁵

There is a ongoing demands and criticisms, for legalizing the use of cannabis for various medical purposes in India, as in contrary to countries like Germany, Netherlands, Italy where the medical use of marijuana has already been legalized. We find many conflicting and controversial Studies pointing at both beneficial and harmful effects of cannabis.⁶⁻⁹

Presence of CB-1 receptors at the Para-ventricular nucleus of hypothalamus which has a role in regulating the erection and intercourse behaviour in males were found but the duration, amount , and the exact mechanism of sexual dysfunction caused by cannabis is still unclear.¹⁰

In this study we at aim assessing the sexual dysfunctions which might occur in the long run on cannabis dependence.

Materials and methods

35 consenting cannabis dependant individuals (ICD-10, F13.25 cannabinoids dependence with continuous use criteria) were assessed for sexual dysfunction using international index for erectile dysfunction-15, on outpatient basis at RIMS, Psychiatry department during a period from June 2016 to July 2017. International Index of

Erectile Dysfunction (IIED)15 which is a 15 question assessment tool that has 4 domains of male sexual function- Erectile, Orgasmic, Sexual desire and Intercourse satisfaction. Subjects having other major psychiatric illness or any major medical illness were excluded from the study. Results were accessed using SPSS version 21.0.

Results :

Majority of subjects were from the age group >30 years. The findings of the sample are described in Table 1. Erectile dysfunction was the highest reported sexual dysfunction and was common in the age group of 31 years and above. Similarly orgasmic dysfunction noted higher in age group >30 years. Sexual desire and overall satisfaction in sexuality as well as satisfaction in intercourse was reduced in the older age group. Statistical significance in any of the dysfunctions with age could not be established in our study.

TABLE 1

Type of sexual dysfunction	Age	n=35		Statistics
		Nil to mild dysfunction	Moderate to severe dysfunction	
Erectile Dysfunction	≤ 30 years	7	6	0.7573
	≥ 31 years	23	16	
Orgasmic dysfunction	≤ 30 years	5	3	1.0000
	≥ 31 years	13	9	
Disorder of sexual desire	≤ 30 years	9	7	1.000
	≥ 31 years	19	14	
Intercourse satisfaction	≤ 30 years	5	2	1.000
	≥ 31 years	10	6	
Overall Satisfaction	≤ 30 years	4	4	0.6715
	≥ 31 years	7	13	

Discussion

In both males and females, arousability and sexual behavior appear to be modulated by ECBs. It is well established that a group of oxytocinergic neurons containing CB1 receptors in the paraventricular nucleus of the hypothalamus (PVN) regulate erectile and ejaculation of males.¹⁰ Aphrodisiac-like properties of cannabis as described by some users are mostly because of impaired perceptual ability of the sexual encounter. At present there is limited evidence from human trials is available to say any beneficial and/or detrimental effects of cannabis

on overall male sexual function.¹¹ In one study, acute use of marijuana has been shown to increase sexual drive, but decreased libido seen in chronic users.¹² Studies relating on the quantity and duration of cannabis use with sexual dysfunction were also found, stating increasing amount and duration can deteriorate the sexual drive.^{13,14,15} Some studies however report increased arousal/sexual pleasure in men with the use of cannabis.^{16,17} However, no link reported between frequency of cannabis use and erection dysfunction in a study where 4350 men were screened for the use of cannabis and its sexual effects.¹⁸

Limitations of the study

As it is not a general population based study, the results may in reality. Smaller study sample due to time and place constraints. Simultaneous use of tobacco and its implications in sexual dysfunction

Conclusions

The current study shows prevalence of sexual dysfunction in patients with cannabis dependence. Although results were not statistically significant, yet further studies with more sample size in this regard are required to establish a definite correlation.

Conflicts of interest – Nil

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