

A Study of Clinical and Socio-Demographic Profile of Elderly Patients with Opioid Use Disorder on Agonist Treatment Attending a Tertiary Care Teaching Institute of India

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Abstract

Background

Opioid use is one among the major substance of use in Indian population which is not only seen in younger age group but rather is an upcoming concern in the elderly population as well. Opioid agonist treatment for opioid use disorder is a better way of management, among which buprenorphine is a safer option. Despite, being an important area of health concern, opioid use is poorly studied in the geriatric population.

Objective

To study the clinical and socio-demographic profile of elderly patients with opioid use disorder on agonist treatment attending a tertiary care teaching institute of urban Delhi.

Method

A retrospective study was done in an OPD based opioid treatment centre of a tertiary care hospital in Delhi to analyze the socio-demographic, clinical profile, pattern of opioid use disorder and opioid agonist treatment (Buprenorphine) in elderly Indian population over a year. The data collected was further analyzed for descriptive and analytic statistics using SPSS version 23.0.

Results

A total of 32 subjects of age > 60years, with predominant male population having mean age of 63.6years we seen. They had heroin use by inhalation route as a major opioid use. The main source of referral was by friends and self with significant medical and psychiatric comorbidities that was seen in the elderly group. An average dose of 2.34mg of Buprenorphine was found to effectively manage the geriatric opioid use disorder.

Conclusion

Opioid Use Disorder is common in Geriatric population and is often associated with both psychiatric and medical co-morbidities. Opioid agonist treatment is an effective approach in management of elderly cases of opioid use disorder.

Declaration of Interest

None

Keywords: elderly Indian population, opioid use disorder, Buprenorphine

Introduction

In the year 2021, Indian population was nearly found to have 138 million elderly persons, comprising of 67 million males and 71 million females as per the report by Population Projections for India and States 2011-2036 (Chatterjee et al., 2022).

Opioid use disorder (OUD) is a concern in young population which creates a wrong notion that elder don't have OUD. A recent study in 2018, from methadone maintenance clinic, New York City reported a prevalence of 13% of its patients to be from age group of 60 years and above (Cotton et al., 2018). The elderly population is expected to double from 1.2% opioid

users in 2004 to 2.4% in 2020 (Substance Abuse and Mental Health Service Administration [SAMHSA], 2017).

Even in India, there is an increase in the prevalence of opioid use disorder. An overall prevalence of current use of any opioid was 2.06% in Indian population [4]. From this group, around 77 lakh problem opioid users belong to states- Uttar Pradesh, Punjab, Haryana, Delhi, Maharashtra, Rajasthan, Andhra Pradesh and Gujarat (Ambekar et al., 2018).

As per the survey by the National Survey on Drug Use and Health (NSDUH) it was found that there is a higher risk (7.6%) of prescription opioid dependence among those over age 50years as compared to all ages (1.7%) (Rather et al., 2013). Among, this group the greatest risk was seen in age group of 60 to 64 years (1.9%) (Rather et al., 2013).

Old age is supported by various reasons for substance use. With advancement of good medical care and resources there is an increment in the life span of an individual. Apart from this, aging is also associated with psychological stressors, loss of near and dear ones, social isolations, sensory- motor deficit and disabilities, empty nest syndrome and adjustment to retirement etc.; which may add to negative coping in form of substance use. Hence, there may be continuation of opioid use from adulthood, initiation or re-initiation of drug use in geriatric population (Mohanty et al., 2018).

Hence, understanding the socio-demographic and clinical factors with opioid use and its treatment are important to be studied and understood.

Aim and Objective

To study the clinical and socio-demographic profile of elderly patients with opioid use disorder on agonist treatment attending a tertiary care teaching institute of urban Delhi.

Methodology and Study Design

Study Design

A retrospective study was performed.

Ethics Committee

The study was carried out after due approval by the Institutional Ethics committee.

Site: Psychiatry de-addiction OPD data

A retrospective study was designed for the elderly Indian population attending Psychiatry OPD for opioid agonist treatment (Buprenorphine) over past one year at a tertiary care hospital. Individuals of both gender and age of 60years and above having opioid use disorder as per DSM- 5 criteria were selected for the study. The population was then analyzed for the socio-demographic, clinical profile, pattern of opioid use disorder and opioid substitution treatment. The data collected was further analyzed for descriptive and analytic statistics using SPSS version 23.0.

Results

Among the patients following up for opioid agonist treatment in Psychiatry OPD, around 32 individuals belonged to the geriatric population (age 60years and above). The mean age of the elderly group was 63.6years where a predominant population were of male gender (n=26) while 13.3% were females. A majority of the population was married (n=24) and semi-skilled (n=20) population belonging to nuclear family (n=23). The main source of referral for treatment was by self (n=16) and friend (n=10) while 18.7% cases were brought by family/ relatives. (Table no. , figure no.-1).

Among the study subjects, 25% had medical co-morbidities in form of hypertension and diabetes. There was sexual disorder reported in form of erectile dysfunction and premature ejaculation in 18.7% population (n=6) and personality disorder (anti-social personality disorder) among 7 subjects. (Table no.- 1 , figure no.-1)

Variables	N= 32	n (%)
Gender	Male	26(86.7)
	Female	6(13.3)
Family	Nuclear	23(76.7)
	Joint	9(23.3)
Marital status	Married	24(75)
	Unmarried/single	8(25)
Occupation	Skilled	8(25)
	Semi-skilled	20(62.5)
	Home-maker	4(12.5)
Socio-economic status	Upper	0(0)
	Middle	3(9.4)
	Lower	29(90.6)
Source of referral	Family	6(18.7)
	Friend	10(31.3)
	Self	16(50)
Comorbidities	Medical	8(25)
	Sexual disorders	6(18.7)
	Personality disorder	7(21.8)

Table 1: Socio-demographic profile of elderly opioid users:

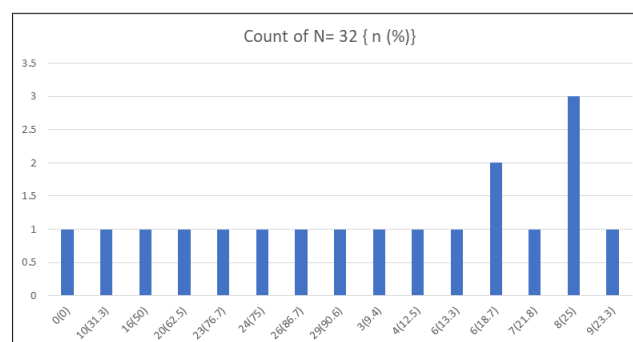


Figure 1: Socio-demographic profile of elderly opioid users

The mean duration of opioid use in the study population was 22.3years. The type of opioid consumed was natural (*phukki/doda*) in 10 cases, heroin in 16 and capsules of propoxyphene in 6 individuals. The predominant route of administration was inhalational (smack chasing) in 59.4% of cases and oral in 40% of cases. Apart from opioid use, there was the use of tobacco in 22 cases, alcohol in 9 and cannabis use in 14 subjects. (Table no.-2, figure no.-2).

Mean duration	22.3Years	n (%)
Type of opioid	Natural	10(31.3)
	Heroin	16(50)
	Propoxyphene	6(18.7)
Route of administration	Oral	9(28.1)
	Inhalational	19(59.4)
	Parenteral	4(12.5)
Other Substance	Tobacco	22(68.7)
	Alcohol	9(28.1)
	Cannabis	14(15.6)

Table 2: Pattern of opioid use in the elderly

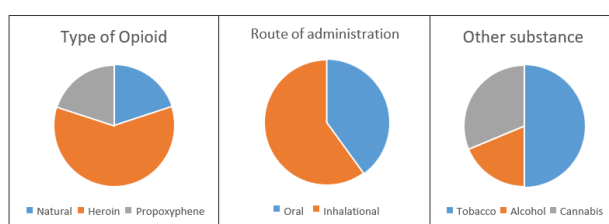


Figure 2: Pattern of opioid use in the elderly.

These study subjects were on opioid substitution treatment with tablet Buprenorphine sublingual preparation from Psychiatry OPD. The mean minimum dose of buprenorphine required in the elderly population was 1.68mg and the mean maximum dose was 3mg per day. The average dose in the geriatric population was 2.34mg per day. (Table no.-3, figure no.-3).

Dose (mg)	Minimum	Maximum	Average
Buprenorphine	1.68	3	2.34

Table 3: Buprenorphine treatment in elderly Indian population

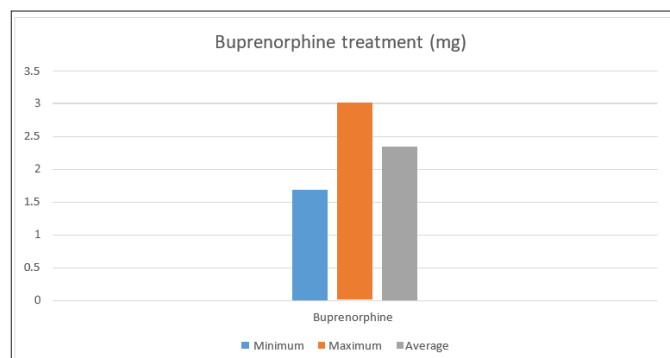


Figure 3: Buprenorphine treatment in elderly Indian population

Discussion

Among the opioid use disorder patients following up for opioid agonist treatment in Psychiatry OPD, around 32 individuals belonged to the geriatric population (age 60years and above). There was a predominance of male gender in our study population which is comparable to the available studies from states of Punjab and Kashmir about the profile of patients visiting de-addiction clinics (Rather et al., 2013; Mohanty et al., 2018; Farhat et al., 2015). This is also reflective of more promptness in male gender to seek help for substance use problems as compared to females in India.

In our study the results were in line with the demographic profile of predominant nuclear family, married and semi-skilled population as prevalent in the available literature (Rather et al., 2013; Mohanty et al., 2018; Bashir et al., 2015). A study by, (Mohanty et al., 2018) in Manipur, it was found to have equal distribution of joint and nuclear families (Mohanty et al., 2018). Presence of personality disorder is comparable with the findings of an 11 years retrospective study by (Basu et al., 2013) where around 10% substance use disorder cases had personality disorder (Basu et al., 2013).

Also, there was presence of co-morbid substance use where a major other substance was tobacco. These results are contemplative of the risk factors for opioid use like male gender, tobacco use, social background and personality disorder as shown by various studies as well (Shanahan et al., 2021).

In our study had friends and self were the main source of referral for treatment which was similar to the findings of study by (Giri OP et al., 2014), where family and peer group had positive correlates with treatment of opioid use disorder (Giri et al., 2014).

As per the Magnitude of substance use in India, 2019 survey, it was found that the most commonly used opioid type in Indian population is heroin (1.14%) followed by pharmaceutical opioids (0.96%) and opium (0.52%) (Ambekar et al., 2019). The results of our study are well comparable with the national prevalence as predominant type of opioid use found in our OPD study was heroin followed by propoxyphene and natural opioids use.

Buprenorphine is a safer way for the management of opioid use disorder (Rieb et al., 2020). A lower dose of buprenorphine doses in the range of 1.2–2 mg/day was found to be effective for treatment retention in Indian population (Ambekar et al., 2018). The results of our study were similar to these findings where average dose per day was 2.34mg.

Conclusion

Geriatric population is a significantly important portion of the Indian population. Apart of many medical, psychiatric and social issues, substance use disorder is an important concern yet neglected. There is a sufficient amount of medical and psychiatric co-morbidity seen with opioid use especially in

elderly patients. With the rising trend of opioid use in our Indian culture there is a need to address the same in elderly as well. OST is an effective and safer way for opioid use disorder management and harm reduction in adult as well as in geriatric strata.

Implications

Our study is an inceptive attempt to understand opioid use as an important entity in elderly profile, their socio-demographic and clinical profile and use of opioid agonist in its management. Hence, in future large multi-centric studies can be conducted to study opioid use disorder in elderly profile and opioid agonist treatment in management of opioid use disorder in geriatric population could be considered.

Conflict of Interest

None

Funding

None

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