ORIGINAL ARTICLE

Clinical Profile of Alcoholic Patients Admitted in Medical Wards or Medical Intensive Care Unit in a Tertiary Care Hospital

Chaoji S [1], Humaney N [2]

1- Assistant Professor, Medicine, NKP Salve Institute of Medical Sciences, Nagpur, (MS), India.
2- Professor & HOD, Medicine, NKP Salve Institute of Medical Sciences, Nagpur, (MS), India.

Abstract

Introduction: *Number of alcoholic patients coming to a general hospital is very high. Acute alcohol intoxication as well as other alcohol related health problems is responsible for a large number of admissions.* ***Aim****: To study the clinical profile of alcoholic patients admitted in medical wards or ICU in a tertiary care hospital.* ***Methods:*** *Total 150 patients who gave history of alcohol consumption at least thrice a week for minimum 6 months in continuation were included in this study and Clinical proforma was filled for each patient noting details of—history of present illness, details of alcohol consumption (duration, frequency, quantity and type of alcohol),clinical features, investigations and final diagnosis. Patients were categorized as harmful drinkers or otherwise by applying CAGE and AUDIT-C questionnaire.* ***Results:*** *Most common abnormality encountered in USG was ascites, portal hypertension, cirrhosis (n=47, 31.4%). Decreased haemoglobin was encountered in 129 patients (86%). 57 patients (38%) were diagnosed with cirrhosis, out of which majority had daily intake of alcohol (n=44), <180 ml/day (n=36), total duration for majority being in the range 16-25 years. Same scenario was encountered in patients diagnosed with alcoholic hepatitis.* ***Conclusion:*** *Increasing alcoholism in young age group is worrying finding.*

Keywords*: Alcohol, profile, harmful drinking*

Address for correspondence: Dr. S. A. Chaoji, Assistant Professor, Department of Medicine, NKP Salve Institute of Medical Sciences, Hingna Road, Digdoh Hills, Nagpur, (MS), India. Email: sunanda_chaoji@rediffmail.com
Phone no: +919922965406

Received on: 30/06/2017 Revised: 06/07/2017 Accepted : 08/08/2017

Introduction

Number of alcoholic patients coming to a general hospital is very high. Acute alcohol intoxication as well as other alcohol related health problems are responsible for a large number of admissions. [1] Common Alcohol related admissions in medical wards include [2],Acute alcohol intoxication and rum fits, Alcohol withdrawal, Alcoholic gastritis/pancreatitis/hepatitis, Alcoholic cirrhosis with its complications, Alcoholic neuropathy, cerebellar or pontine syndrome, Anemia& Malnutrition etc.

These conditions can be further classified as- [3]

1. Definitely alcohol related (e.g. cirrhosis)
2. Possibly alcohol related (e.g. aspiration pneumonia, depression)
3. Not related to alcohol consumption (e.g. diabetes**)**

Study Definitions[2]

One standard drink- contains 12 grams of pure alcohol (70-100calories)
- 150 ml (5ounces) wine
- 360 ml (12 ounces) Beer
- 22 ml (1.5 ounces) whisky

Alcoholism

A chronic disease with genetic, psycho social and environmental factors, characterized by impaired control over drinking, preoccupation with drug alcohol, use of alcohol despite future consequences and distortion of thinking, most notably denial.

Moderate drinking

The average number of drinks consumed daily that places an adult at low risk for alcohol

related problems, is termed as moderate drinking (defined by National Institute of Alcohol abuse and alcoholism).

At risk or problem drinking
Level of alcohol consumption that causes problems to the person: medical, psychological, social, behavioral.

Binge alcoholism
Episodic consumption of large amount of alcohol, usually 5 or more drinks per occasion for men and 4 or more for women.

Alcohol abuse
Use of alcohol in high risk situations e.g. driving and social dysfunction.

Alcohol dependence
It includes social consequences along with criteria related to physiological aspects of dependence and use despite physical or psychological problems. CAGE [4] and AUDIT-C [5,6] questionnaires are used as standard tools for identification of alcohol dependence

We undertook this study, since this is first of its kind conducted in Central India. Also alcohol related disease data is very scarce in our country, so this is an attempt to reinforce the existing scant data and to add new piece of information, if any.

Materials and Methods

It was a prospective cohort study conducted at Department of Medicine, NKP Salve Institute of Medical Sciences and Lata Mangeshkar hospital, Digdoh, Nagpur during one year period. 150 patients admitted in Medicine wards and ICU who gave history of alcohol consumption at least thrice a week for minimum 6 months in continuation were included in this study.Alcoholic patients not willing to participate in the study, immunocompromised patients, viral hepatitis B and C positive and hemodynamically unstable patients were excluded from the study. Drinking pattern, type of alcohol consumed, quantity per day, and total duration of intake were recorded. CAGE and AUDIT-C questionnaire and scoring system for knowing about alcohol dependence was used.
Ethical permission taken prior to the start of study and written informed consent was taken from patients or his relatives (unconscious patients).

CAGE questionnaire
1- Do you feel the need to cut down your drinking? YES/NO
2- Are you annoyed by criticism of your drinking? YES/NO
3- Do you experience guilt because of your drinking behavior? YES/NO
4- Do you use alcohol as an eye-opener to overcome a hangover? YES/NO

2 positive answers indicate dependence on alcohol (70% or more sensitive, 90% or more specific)

AUDIT-C questionnaire (Alcohol Use Disorders Identification Test-shortened version)
3 or more points indicate heavy drinking or dependence.

1- How often do you have a drink containing alcohol?
   Never- 0 points
   Monthly or less—1 point
   2-4 times/month—2 points
   2-3 times /week—3 points
   4 or more times/week—4 points
2- How many units of alcohol do you drink on a typical day when you are drinking?
   1-2—0 points
   3-4—1 point
   5-6—2 points
   7-8-9—3 points
   10 or more—4 points
3- How often have you had 6 or more drinks (female) or 8 or more drinks (male) on a single occasion in last year?
   Never—0 points
   Less than monthly—1 point
   Monthly—2 points
   Weekly—3 points
   Almost daily—4 points.

Results

Out of 150 patients, maximum patients were in the age group 41-60 (46.7%), 46% were in age group 20-40, and 7.3% were in age group 60-80. 149 patients were male and there was only one woman. Out of total study population majority of patients had a hospital stay ≤ 7 days (n=117) and only 1 patient was admitted for ≥ 28 days. 140 patients survived (93.3%) 10 patients died during hospital stay. 99 patients were admitted

in ward while remaining patients were admitted in ICU.

Most common diagnosis encountered in study patients was liver cirrhosis (n= 61, 40.6%) followed by anaemia. Most common abnormality encountered in USG was ascites, portal hypertension, cirrhosis (n=47, 31.4%). Decreased haemoglobin was encountered in 129 patients (76%), decreased MCV in 16 patients, increased MCV in 51 patients (31%), increased bilirubin in 74 patients (49.3%), increased SGOT in 108 patients (72%), increased SGPT in 50 patients (33.3%), and increased INR in 18 patients.

57 patients (38%) were diagnosed with cirrhosis, out of which majority had daily intake of alcohol (n=44), <180 ml/day (n=36), total duration for majority being in the range 16-25 years. Same scenario was encountered in patients diagnosed with alcoholic hepatitis. Amongst pancreatitis patients (n=10) majority had daily intake of alcohol (n=7), country liquor (n=6) with total duration of intake being 16 to 25 years for majority of them (n=7). Out of 12 patients diagnosed with alcohol withdrawal, majority had daily intake of alcohol (n=8), country liquor (n=9), duration being 6-15 years for most of them (n=6). Same findings were observed in hypertensives and diabetics. Out of 14 patients with final diagnosis of anaemia, majority were taking alcohol < 7 days/week (n=9), < 180 ml/day (n=11), country liquor (n=11) with total duration of intake being 6-15 years for majority (n=7) table-1. CAGE and AUDIT-C questionnaire and scoring system for substance abuse findings showed maximum patients were in CAGE score ≥2 (n=122,81.3%) and AUDIT-C score ≥4 (n=139, 92.8%). Child Pugh score was not applicable in 92 patients (61.3%) while 27 patients (18%) were in grade B, 23 patients (15.3%) in grade C, 8(5.3%) patients in grade A.

Table-1: Final diagnosis and alcohol intake history

Final Diagnosis	**Frequency of alcohol intake**			**Quantity of alcohol intake**		**type of alcohol consumed**				**Total duration of alcohol intake**				**n (%)**
	<7d /wk	daily	<180 ml/d	181-760	>760/d	C	F	Both	<5 yrs	6to15	16-25	26-35	>35	
Cirrhosis	13	44	31	22	4	36	7	14	0	37	17	3	0	61 (40.6)
Alcoholic Hepatitis	3	5	5	3	0	5	1	2	2	3	3	0	0	8 (5.3)
Acute pancreatitis	3	7	7	3	0	6	1	3	1	7	2	0	0	10 (6.6)
Cerebrovascular accident	4	7	4	6	1	5	4	2	0	3	7	1	0	11 (7.3)
Sepsis	0	1	0	1	0	0	0	1	0	0	1	0	0	1(0.6)
Hypertension	7	4	8	2	1	7	0	4	2	2	5	1	1	11(7.3)
Alcohol withdrawal (including seizures)	4	8	6	6	0	9	1	2	1	6	5	0	0	12(8)
Gastritis/GERD/Gastric ulcer	3	9	10	2	0	4	5	3	1	5	5	1	0	12(8)
Tuberculosis	1	4	**4**	1	0	4	1	0	0	3	2	0	0	5(3.3)
Anaemia	9	5	10	4	0	11	1	2	2	7	3	1	0	14(9.3)
Diabetes mellitus	4	5	5	3	1	7	1	1	0	3	4	1	1	9(6)
Organophosphate poisoning	2	0	2	0	0	0	2	0	1	1	0	0	0	2(1.3)
Fatty liver	0	2	0	2	0	2	0	0	1	1	0	0	0	2(1.3)
Chronic kidney disease	4	2	2	4	0	4	0	2	1	2	3	0	0	6(4)
Pneumonia, pleural effusion	4	1	3	2	0	2	2	1	2	1	1	1	0	5(3.3)

Discussion

In the present study maximum patients were in the age group 41-60. This finding was corroborated with that of other such studies. [7,8] But worrying finding was that 2nd most common age group was younger one i.e. 20-40 years. This probably may indicate increased alcohol

consumption by young people owing to changing socio-economic status. [9] In the present study maximum patients had hospital stay < 7 days, which was similar to that of finding of other study. [10] In our 149 were male and only 1 female and this finding was in contrast with findings of other studies, which reported more number of female patients. [7,11,12] This finding may be due to the fact that in this part of country alcohol drinking is considered as social stigma. Most common diagnosis was liver cirrhosis, which was corroborated with findings of other such studies. [6,10] USG findings of the present study corroborated with findings of other studies with most common finding being shrunken liver (cirrhosis) and fatty liver (hepatomegaly). [12] Majority of the patients consumed country liquor, which was similar to findings of many studies conducted elsewhere. [9,10] This may be attributed to the fact that majority of the population in this part of country hails from rural background and of low socio-economic strata. Decreased haemoglobin was found in 75% patients, which was similar to other study findings which reported higher incidence of reduced haemoglobin in their study patients. [9] Cirrhosis, alcoholic hepatitis was more associated with frequency of intake (daily) and type of alcohol (country liquor) and no such correlation was found with quantity of alcohol consumed and total duration of alcohol consumption since maximum patients gave history of quantity as <180 ml/day and total duration of alcohol consumption 6 to 15 years as compared to 180 to 650 ml/day and 16 to 25 years, respectively. But on further analysing duration of alcohol consumption, when <5 years group was compared with 6 to 15 years age group, more patients were in 6 to 15 years group, thus indicating that duration of consumption plays a role in development of cirrhosis. Such finding was encountered in other such study. [9] Amongst Child Pugh score findings maximum patients were in grade B followed by grade C and A. Increasing grades indicate increasing mortality. Grades B and C were associated with increased country liquor consumption, 6 to 15 years duration of consumption. CAGE and AUDIT-C findings indicated that maximum patients were addicted to alcohol, which is a worrisome finding.

Conclusion

One thing is strikingly clearin the present study that alcoholism is affecting most productive age group i.e. 20-40 years, so it is of utmost importance to increase awareness about hazards of alcoholism at hospital level and at public places through media to curb this grave disease.

Conflict of Interest: *None declared*
Source of Support: *Nil*
Ethical Permission: *Obtained*

References

1. O'Farrel A, Allwright S, Downey J et al. The burden of alcohol misuse on emergency in-patient hospital admissions among residents from a health board region in Ireland. Addiction. 2004;99(10):1279-85.
2. Kumar & Clark's Clinical Medicine,7th edition 2009,1211-1212
3. Gerke P, Hapke U, Rumpf H et al. Alcohol related diseases in general hospital patients. Alcohol & Alcoholism. 1997; 32:179-1841
4. Ewing JA. Detecting alcoholism: the CAGE questionnaire. JAMA. 1984; 252(14):1905-7.
5. Nordqvist C, Johansson K, Bendtsen P. Routine screening for risky alcohol consumption at an emergency department using the AUDIT-C questionnaire. Drug and Alcohol Dependence. 2004; 174(1):71-75.
6. Saunders J, Aasland O, Babor T et al. Development of the alcohol use disorders screening test (AUDIT) WHO collaborative project on early detection of persons with harmful alcohol consumption-II. Addiction. 1993; 88:791-804.
7. Nand N, Malhotra P, Dhoot DK. Clinical profile of alcoholic liver disease in a tertiary care centre and its correlation with type, amount and duration of alcohol consumption. J Assoc Physicians India. 2015;63(6):14-20.
8. Nagamani R, Sakuntala P, Madhuri et al. Clinical profile of alcoholic liver disease patients in a tertiary care teaching hospital and its correlation with type of alcoholic beverage consumption. International Journal of Medical and Health Research. 2016; 2(6):12-14.
9. Suthar H, Suthar K, Mewada B. Clinical profile of cases of alcoholic liver disease. Int J Med Sci Public Health 2013; 2:394-398.
10. Mahesh G. Clinical profile of patients with alcoholic liver disease. World J Pharm Sci 2016; 4(12): 332-334.
11. Xie Y, Feng B, Gao Y Et al. Characteristics of alcoholic liver disease and predictive factors for mortality of patients with alcoholic cirrhosis. Hepatobiliary Pancreat Dis Int. 2013; 12:594-601.
12. Jepsen P, Ott P, Andersen P. Clinical course of alcoholic liver cirrhosis: a Danish population based cohort study. Hepatology 2010; 51:1675-1682.