

A Prospective Cross-Sectional Study: Prevalence Of Alcohol Consumption And Health Outcomes In Men Of Age 18- 70 Years In A Tertiary Care Hospital, Ongole.

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Abstract:

The aim of study is to assess the prevalence of alcoholic disorder in men with age of 18 to 70 years in tertiary care hospital ongole, prakasamdistrict.Objective:The objective of this study is to determine the incident social demographic and clinical risk factor for alcoholics. To bring awareness about the diseases and risk factors in alcohol consumers. Methodology: S

tudy type: a prospective observational Study site: department of general medicine, government general hospital, Ongole, Andhra Pradesh, India. Study period: 6months Study population: 399 samples. Result: Considering the demographic parameters, out of 399 patients, 66 patients were Diagnosed with APPENDICITIS between 18-70 years of age, 52 patients were diagnosed with CLD between 18-70years of age, 39 patients were diagnosed with ALCOHOL HEPATITIS Between 18-70 years of age, 61 patients were diagnosed with CKD between 18-70 years of age,61 patients were diagnosed with GASTRITIS between 18-70 years of age, 70 patients were Diagnosed with PANCREATITIS between 18-70 years of age , 50 patients were diagnosed with other diseases between 18-70 years of age. Conclusion: The current study Concerns on mainly on the health outcomes and type of alcohol consumed by the particular age groups [18-70] elder age to older age. The results of the current study reflect the need of essential measures are to be taken to Control the growing burden of major health outcomes in middle-aged Individuals and elder age individuals who consumed mild to moderate Alcohol consumption.

Keywords:Appendicitis, CLD, CKD, Alcoholic Hepatitis, Pancreatitis.

Date of Submission: 08-09-2023

Date of Acceptance: 18-09-2023

I. Introduction:

DEFINITION:

Alcohol is a substance that is produced by fermentation of yeast, Sugars, and starches. It is most commonly consumed in the form of Ethanol, which is the active ingredient in alcoholic beverages such as beer, wine, and liquor

CAUSES:

The cause of alcohol use disorder is still unknown. Alcohol use disorder develops when you drink so much that chemical Changes in the brain occur. These changes increase the Pleasurable feelings you get when you drink alcohol. This Makes you want to drink more often, even if it causes harm.

Eventually, the pleasurable feelings associated with alcohol Use go away and the person with alcohol use disorder will Engage in drinking to prevent withdrawal symptoms. These Withdrawal symptoms can be quite unpleasant and even Dangerous. Alcohol use disorder typically develops gradually over time.

History:

Some historians suggest that ancient South Indians had knowledge of toddy Tapping. Furthermore, the art of distillation could be the gift of India to the World. Around 1500 BC, before the arrival of Aryans, the inhabitants of ancient India used to make the earliest distilled alcohol called Parishrut. It must be emphasized that the Indo-Aryans indulged in spirituous liquors, perhaps excessively. The potteries Found during the Indus Valley excavations indicate that Harappans had the Knowledge of distilling long before the arrival of Aryans. Whether the knowledge of Making spirituous liquors existed prior or brought by Aryans, their use quickly Became part of their ceremonial rites and rituals of every clan and tribe. Soma, the Spirituous liquor that is associated with the Moon deity with the same name was Praised throughout RigvedaSamhita.

Rigveda has hymns that state that soma was consumed by people. Freely and kept in leather bottles. Having the same name for the deity and the liquor, Meaning having both identified with one symbol, also hinting towards our ancestors' Passion towards the spirituous liquor. The Rigvedic hymns praise soma as 'celestial Nectar' with divine characteristics. Thus, the very first impression Aryans had might Be that alcohol is divine. Soma is considered the holiest offering in the ancient Indian Worships. The preparations for the Soma ritual known as somayaga begins with Collecting the moon plant.[1].

Epidemiology:

According to recent data published by the World Health Organization (WHO), the total per capita consumption of alcohol by individuals above 15 years of age is 6.2 L of pure alcohol per year, which equals 13.5 g of pure alcohol per day. However, there is a wide variation between the WHO regions and member states. Nearly 5.1% of the global burden of disease is attributable to alcohol consumption, and it causes nearly 3.3 million deaths every year.[2].

Quality conscious (Understanding your drink)

It is demonstrated that by 2022, while 50 per cent of the consumers would buy more of the same category of alcoholic beverages that they are consuming, 30 per cent are expected to move to higher brands and 20 per cent will spend on newer categories of alcohol.

CHRONIC LIVER DISEASE:

Chronic liver disease (CLD) is a progressive deterioration of liver functions for More than six months, which includes synthesis of clotting factors, other proteins, Detoxification of harmful products of metabolism, and excretion of bile.

There are three histologic stages of alcoholic liver disease [3][4]:

1. **Alcoholic Fatty Liver or Steatosis**– At this stage, fat accumulates in the liver parenchyma.
2. **Alcoholic Hepatitis** – Inflammation of liver cells takes place at this stage, and the outcome depends on the severity of the damage. Alcohol abstinence, nutritional support, treatment of infection, and prednisolone therapy in severe cases can Help in the treatment of alcoholic hepatitis, but more severe cases lead to liver failure.
3. **Alcoholic Cirrhosis** – Liver damage at this stage is irreversible and leads to complications of cirrhosis and portal Hypertension.

Etiology:

1. **Alcohol**
2. **Viral infections.**
3. **Immune disorders:**

a. Auto immune hepatitis (AIH): It is an unresolving inflammation of the liver characterised by the presence of autoantibodies or anti kidney hypermegalalbumin present acutely with a severe hepatitis .it occurs mainly in young women of age 20- 40 years

b. Primary biliary cirrhosis (PBS): It is an autoimmune disease of the liver which predominantly effect middle aged women.it is characterized by the presence of antimitochondrial antibodies and granulomattersdistrution of interlobular bileduct leading to progressive destruction or damage of ducts and leads to fibrosis and eventually causing liver cirrhosis.

C. Primary sclerosing cholangitis: It is an idiopathic chronic inflammatory disease resulting in intra, extra hepatic Biliary strictures, cholelithiasis and finally leads to cirrhosis and there is strong relationship between PSC and IBD about 75%of psc having the chances of getting IBD especially ulcerative colitis about 5- 7 %of ulcerative colitis having the Chances of psc.

4. **Vascular abnormalities :** Budd- chairi syndrome: It is a rare heterogeneous and potentially fatal condition related to Obstruction of the hepatic venous out flow .it is effect especially in patients of age 35 years in female.
5. **Genetic abnormalities:** hemochromatosis, Wilson's disease, alpha 1 anti trypsin deficiency, glycogen storage Disease.
6. **Drugs: DILD [5].**

II. APPENDICITIS:

Appendicitis is the inflammation of the vermiform appendix. It typically presents acutely, within 24 hours of onset, but can also present as a more chronic condition. Classically, appendicitis initially presents with generalized or periumbilical abdominal pain that later localizes to the right lower quadrant.[6]

III. PANCREATITIS:

1.Acute pancreatitis is a common disease and is the leading cause of hospitalization among gastrointestinal disorders in the United States. It involves acute inflammation of the pancreas. The severity of acute pancreatitis varies widely, from mild conditions needing conservative treatment to severe and complicated diseases with high morbidity and mortality. The mortality of acute pancreas ranges from 3% in patients with mild edematous pancreatitis to as high as 20% in patients with pancreatic necrosis.[7]

The Atlanta classification broadly classifies acute pancreatitis into two categories.[8] These are:

Interstitial edematous acute pancreatitis is characterized by the acute inflammation of the pancreatic parenchyma and surrounding peri-pancreatic tissue.

Necrotizing acute pancreatitis is characterized by necrosis of pancreatic parenchyma and peri-pancreatic tissue.

Chronic pancreatitis is a progressive inflammatory disorder that leads to irreversible destruction of exocrine and endocrine pancreatic parenchyma caused by atrophy and/ or replacement with fibrotic tissue. Functional consequences include severe abdominal pain, diabetes mellitus, and malabsorption.[9].

IV. chronic kidney disease:

Chronic kidney disease, also called chronic renal failure, is defined as gradual loss of kidney function. The main function of

The kidney is used to filter waste and excess fluids from blood which is then excreted through urine. When CKD reaches an

Advanced stage dangerous levels of electrolytes, wastes and fluids accumulate in the body [10]. It is a non-communicable

Disease usually caused by Diabetes and Hypertension [11].

V. Gastritis

Gastritis is an acute or chronic inflammation of the mucosal layers of the stomach. It may be caused due to excessive intake of Alcohol, ingestion of irritating drugs, food poisoning and infectious diseases. Symptoms are severe vomiting, loss of Appetite, thirst and diarrhea [12]. Acute gastritis also referred to as reactive gastritis occurs as a result of the trigger by Factors such as NSAIDs, stress, bile reflux, radiation, alcohol abuse, cocaine addiction, and ischemic damage. As a result of The triggering agent and decreased prostaglandin synthesis is the reason for injury of gastric mucosa. Which acts as Safeguard for the deleterious effects of the gastric acid by mechanisms [13]. In the majority of patients, the initial acute Phase of gastritis is subclinical and is of short duration.

VI. Methodology:

Study site:

This study was conducted at the general medicine in a Tertiary Care Teaching Hospital, Ongole, Prakasamdist, Andhra Pradesh, India.

Study approval: This study was approved by the institutional ethical committee of the QIS College of pharmacy.

Study design: This was a prospective observational study carried out in General Medicine. This study took place over a Six-month period, from November 2022 to April 2023.

STUDY ELIGIBLE CRITERIA:

Inclusion criteria:

- . Patients of age about 18-70 years were included.
- . Patients who are under follow up are included.
- . Patients who are registered at general medicine ward are included.

Exclusion criteria:

- . Patients below 18 and above 70 are excluded
- . Psychiatric patients are excluded
- . Cancer patients are excluded
- . Pregnancy women and pediatrics are excluded.

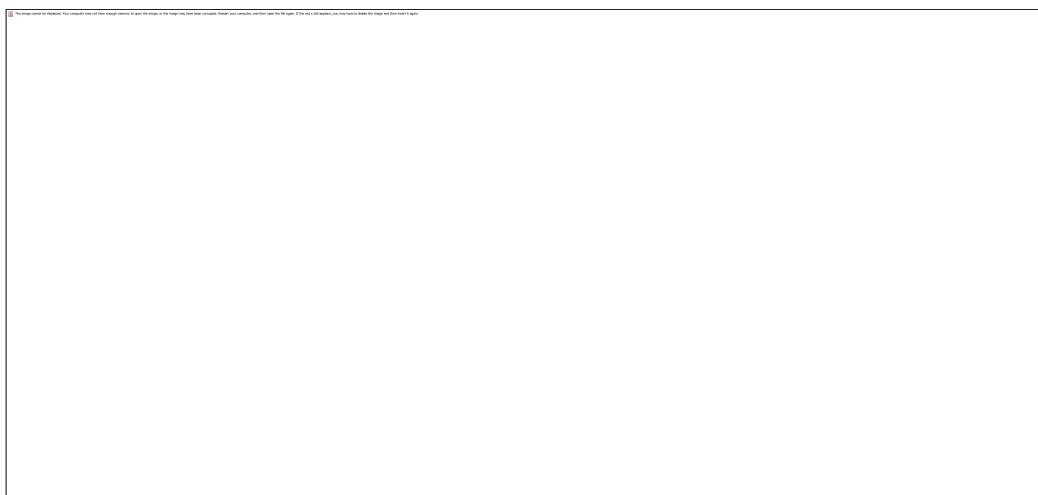
Study procedure:

✓ Prospective cross-sectional studies that have been conducted on 399 patients in General medicine of a tertiary care Hospitals among the patients who adhere to criteria were registered in the study. The data was collected by using well Designed Proforma according to the criteria; the data was analyzed by SPSS software version 23.0.

VII. Result

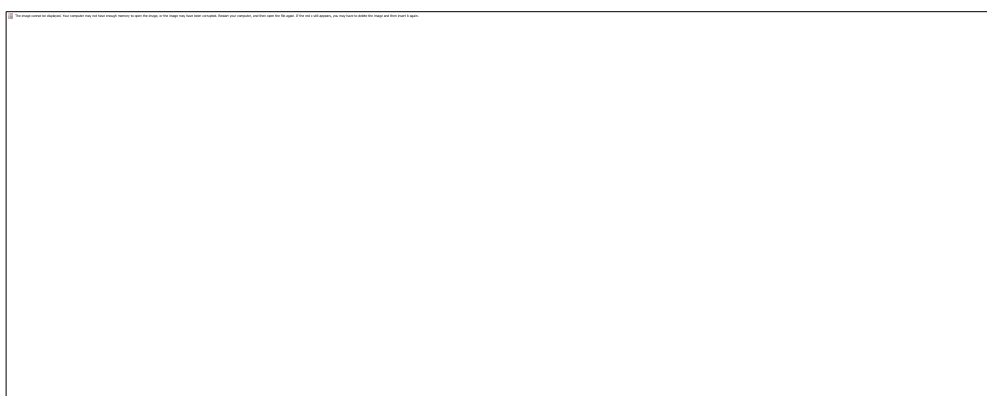
AGE vs DIAGNOSIS:

AGEGR P	Appendicitis	CLD	Alcohol hepatitis	CKD	Gastritis	Pancreatitis	Others	TOTAL
18-30	7	10	2	22	30	20	10	101
31-50	27	30	27	33	25	40	30	212
51-70	32	12	10	6	6	10	10	86
TOTAL	66	52	39	61	61	70	50	399



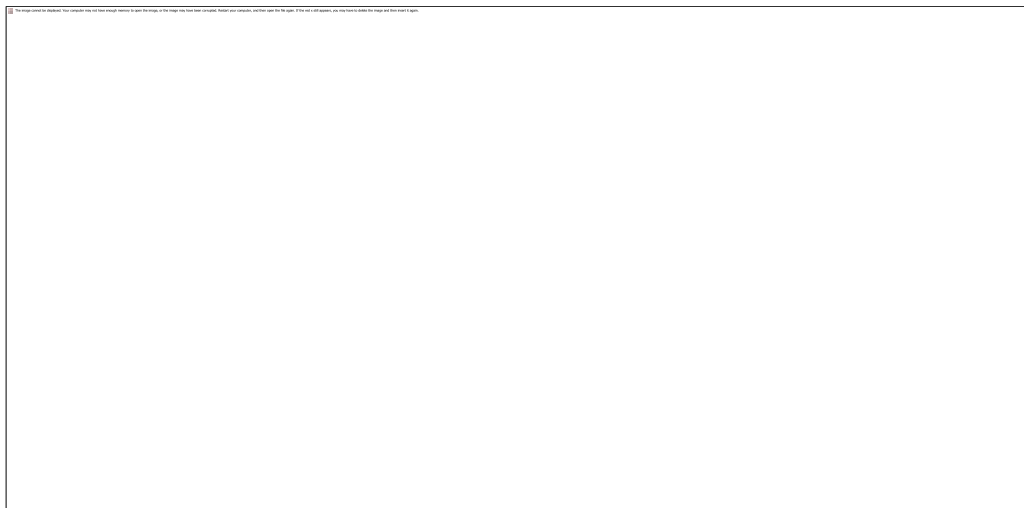
History of consuming:

HISTORY	Appendicitis	CLD	Alcohol hepatitis	CKD	Gastritis	Pancreatitis	Others	Total	% Total
SINCE 3-5YRS	12	10	15	9	14	20	16	96	24.73%
SINCE 5-10YRS	21	10	20	21	27	28	25	152	36.15%
SINCE 12-15YRS	12	10	20	10	5	4	14	75	20.81%
MORE THAN 15YRS	6	33	7	9	5	7	9	76	18.31%
	51	63	62	49	51	59	64	399	
% Total	6.18%	7.61 %	8.32%	6.42 %	7.13%	7.73%	9.04%	47.56%	100.00%



Types vsDiagnosis :

TYPE	Appendicitis	CLD	Alcohol hepatitis	CKD	Gastritis	Pancreatitis	Others	Total
WHISKEY	21	20	33	19	22	40	26	181
Beer	12	13	14	15	17	18	7	96
BRANDY	10	11	19	23	12	15	14	104
SARA	10	3	2	1	1	1	0	18



VIII. DISCUSSION

An objective of this study was to investigate the prevalence of alcohol use characteristics in middle-aged men. This study showed that midlife (18-70 age) alcohol drinking was related to the risk of hepatic impairment, pancreatic impairment and renal impairment. In this study we collected 399 cases in ongole tertiary hospital care to find out the prone of alcohol consumption.

In this study the age group of 30 to 50 years are more in consuming alcohol. The main reason for consuming alcohol is due to stress, financial problems and fun. Out of 399 patients in age of 18 to 70 years, 66 patients were diagnosed with APPENDICITIS, 52 patients were diagnosed with CLD, 39 patients were diagnosed with ALCOHOL HEPATITIS, 61 patients were diagnosed with CKD, 61 patients were diagnosed with GASTRITIS, 70 patients were diagnosed with PANCREATITIS, 50 patients were diagnosed with OHER DISEASES.

For assessment of Prevalence of alcohol consumption and health risks in males of age 18-70 using WHO guidelines – questionnaire based on 4 main domains reflecting varying degree of Health outcomes in males.

By using the regression analysis relationship between the diagnosis and alcohol consumption based on the 4 main domains were determined in males age of 18-70yrs.

Using the DU test, the autocorrelation in the residuals from a regression analysis was detected. There result in a positive autocorrelation.

By using ANOVA ONE WAY the mean scores and P-Value were calculated for each domain based on age groups in males and it is compared.

The P-Value is .000s [<0.05]; hence there is a significant difference between the domains and outcomes.

The P-Value - 0.012 <0.05 ; hence there is a signification difference between history of alcohol consumed and diagnosis [outcome].

The P-Value – 0.000 <0.05 ; hence there is a significant difference between type and outcome.

Among the 399 patients in the age group of 18-70, there is a significant relation between alcohol consumption and health outcomes.

There seems to be a culture of heavy daily drinking among lower and lower-middle sections of the society in many areas, where working class men assemble around liquor shops every evening and enjoy drinking and socializing and when it comes to the daily wages, they confirmly drink the alcohol at evening or night sessions to relief from their work. This pattern is not too unique.

The amount of alcohol consumed by drinkers was high, which suggests that the risk of serious health problems like hepatic impairment, pancreatic and renal impairment and others which may also triggers to cause major problems.

Harmful Consumption of alcohol is an important public health challenge with long term impact on individuals' health system. Particularly, the major harmful health outcomes [i.e.; Chronic liver disorder, Appendicitis, CKD, Pancreatitis] of alcohol consumption in an individual is a growing public health concern as reported in a current study. The current study concerns mainly the health outcomes and type of alcohol consumed by the particular age groups [18-70] elder age to older age. The results of the current study reflect the need for essential measures to be taken to control the growing burden of major health outcomes in middle-aged individuals and elder age individuals who consumed mild to moderate alcohol consumption.

IX. Conclusion:

The abuse of alcohol is an extremely serious health problem that has a negative effect on families, communities, and people of all ages. It creates major complications like appendicitis, Chronic liver disease, alcoholic hepatitis, gastritis, chronic kidney disease, pancreatitis. According to our study, the age group between 31-50 alcoholics are more prone to develop pancreatitis. It is significant to note that both the frequency and the amount of alcohol use determine the magnitude of the adverse consequences due to alcohol abuse. Especially, given that peer age groups [i.e., 18-50yrs] have a determinantal effect on consumption of alcohol, prevention interventions should involve their participation. It should also be noted that alcohol cessation intervention among the adult and elder age groups who are majorly prone to harmful outcomes be targeted as the current study reports that consumption of alcohol by individuals could positively impact the consumption of alcohol by their children or friends and their surroundings'.

The detrimental impacts of alcohol intake on health are important justifications for limiting or even entirely prohibiting it. For the mitigation and management of this social ailment, the whole nation needs a well-planned approach. Efforts from both the government and families will prevent the alcohol abuse. Public policies and establishment of rehabilitation/ de-addiction centres can be useful. The most effective approach to alleviate the harm caused by alcohol abuse in society is through educating the family of the individual in all ways to encourage the alcohol dependent person to de-addict to alcohol. Education on disadvantages of alcohol abuse and strategies to make them de-addict will be helpful in improving the quality of life of the individual.

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