

## **Course of Alcohol use disorder**

Substance use disorders are described as chronic, relapsing, remitting disorders, where both DSM IV and ICD -10 require duration of minimum 1 year for symptoms to be present. Determinants of onset of substance use disorders are genetic factors, brain reward mechanism, psychodynamics, and socio-cultural issues. Determinants of course have not been clearly identified; hence it is not clear why some patients have a chronic course while others do not. There are very few studies on the impact of these determinants on course of substance use disorder.

It has been shown that course of patients who report to clinic differs from those in the community. To understand the complete picture naturalistic studies are required. The studies that are available show variable results. Variability in results is due to the differences in selection of subjects, duration of follow up, and criteria for abstinence v/s controlled drinking. At one extreme, a 95 percent relapse rate among a group of alcoholics followed for four and eight years after treatment at a public hospital was reported.<sup>1,2</sup> When a much shorter duration of follow up of 6 months was taken, 57 percent continued abstinence at a private clinic.<sup>3</sup> Clearly, most research agrees that most alcoholism patients drink at some point following treatment.

In Netherlands Mental Health Survey and Incidence Study (NEMESIS), a large (n=7,076) general population study with a 3-year follow-up was carried out. Patients who had only abuse/ harmful use of alcohol showed a remission rate of 80%.<sup>4</sup> Dependence had a somewhat less favorable course, with remission rates of 67% at 1-year follow-up and 74% at 3-year follow-up. The conviction that addiction is a chronic relapsing disease may apply to treatment-seeking alcoholics, but a far more favorable course of alcohol use disorders in the general population was seen in this study.

Vaillant in a naturalistic, 60 year follow up study of two groups from inner city and college sample reported that by the age 70, chronic alcohol dependence was rare, due to death and stable remission.<sup>5</sup> In both groups alcohol abuse could persist for decades without remission, death, or progression to dependence. There was no job loss, morning drinking, or need for detoxification. Alcohol dependent men could neither sustain prolonged periods of return to controlled drinking status nor of intermittent alcohol abuse. They returned to morning drinking and need for detoxification.

Predictors of recovery were different from predictors of onset of alcoholism. Heredity, family disorganization, number and severity of alcohol problems and absence of alcohol clinic treatment failed to predict poor long term outcome. Factors for recovery from alcohol dependence were severity, finding non pharmacological substitute for alcohol, compulsory supervision (immediate negative consequence for relapse), new relationship and involvement in spiritual programs. Prolonged follow up reveals a paradox in predicting the life course of an alcoholic. Most and least severe alcoholics appeared to enjoy best, long term chances of remission. Socially disadvantaged men, strong family history, and early onset of severe alcohol dependence were more likely to become stably abstinent. Alcohol abusers with excellent social support, high education, good health habits, late onset of minimal alcohol abuse were more likely to remain chronic alcohol abuser.

Whether DSM and ICD criteria can predict chronicity of alcohol use disorder was studied in NEMESIS study. Significantly increased risk for dependence at 1 and 3 years was seen with all dependence criteria except tolerance. Abuse criteria displayed much lower and non significant risk of

dependence at follow up, with the exception of legal problems. ICD -10 criterion “craving” had highest relative risk for dependence at 1 and 3 years follow up.<sup>6</sup>

While looking at genetic factors in relation to course of alcohol use disorders it was reported that serotonin transporter activity is greater in carriers of long (L) v/s short (S) alleles of 5-HTT linked polymorphic region. 5-HTT expression varies with current and lifetime drinking in L-carriers alone.<sup>7</sup>

In summary, the results of studies focusing on initiation and outcome of alcoholism are variable. Despite chronic and remitting nature of alcoholism, large numbers of individuals are still able to lead a near normal life despite heavy daily consumption of alcohol. However, the socio-cultural, local political and legal framework is likely to influence the outcome and thus there is a need of outcome studies from different communities.

**Priti Arun**

## **REFERENCES**

1. Vaillant GE. The natural history of alcoholism. Cambridge: Harvard University Press; 1983.
2. Polich JM, Armor DJ, Braiker HB. The course of alcoholism: Four years after treatment. New York: Wiley; 1981.
3. Wallace J, Mc Neill D, Gilfillan D et.al. Six-month treatment outcomes in socially stable alcoholics: Abstinence rates. *J Subst Abuse Treat* 1988; 5: 247-52.
4. de Bruijn C, van den Br ink W, de Graaf R et.al. The three year course of alcohol use disorders in the general population: DSM-IV, ICD-10 and the Craving Withdrawal Model. *Addiction*. 2006 ;101:385-92.
5. Vaillant GE. A 60-year follow-up of alcoholic men. *Addiction*. 2003;98:1043-51.
6. de Bruijn C, van den Brink W, de Graaf R et. al. Alcohol abuse and dependence criteria as predictors of a chronic course of alcohol use disorder in the general population. *Alcohol Alcohol* 2005; 40: 441-6.
7. Johnson BA, Javors MA, Roache JD et.al. Can serotonin transporter genotype predict serotonergic function, chronicity, and severity of drinking? *Prog Neuropsychopharmacol Biol Psychiatry* 2008; 32:209-16.