

Report on the Alcohol in Moderation – Health and Culture in the Next Millennium Symposium (Oslo, Norway, 27 October 2000)

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Introduction

About 40 people attended this third Scandinavian Medical Alcohol Board (SMAB) symposium. The purpose of the morning session was to review the scientific data on moderate alcohol use and cardiovascular disease and total mortality. This session was arranged as a courtroom session with advocates for the defence and advocates for the prosecution, ending with a verdict by the audience. The afternoon session gave an introduction to alcohol and culture in a Norwegian as well as an international perspective.

Moderate alcohol consumption decreases cardiovascular disease risk

Morten Grønbaek (Denmark), for the defence

Several prospective population studies have shown a U-shaped relation between alcohol use and mortality. This relation may be influenced by confounders (sex, smoking, social class, illness), misclassification (under-reporting and inclusion of ex-drinkers), and by effect modification, like factors relating to cardiovascular disease risk (age, sex, smoking, cholesterol, blood pressure, diabetes) and to drinking pattern (binge drinking, beverage type). The beneficial effect of light to moderate drinking seems to apply to steady drinking, but not to binge drinking. Wine has been suggested to have beneficial effects additional to that of alcohol (French paradox). The flavonoids in wine inhibit LDL oxidation and are preventive against ischaemic heart disease and cancer. The speaker concluded that wine drinkers may have more favourable traits than drinkers of beer or spirits. Alcohol has beneficial effects, but these effects are dependent on age, sex, coronary heart disease (CHD) risk factors, drinking pattern and type of alcohol.

Gerald Shaper (UK), for the prosecution

A U-shaped relation is very common. For example, also BMI and plasma cholesterol levels correlate in a U-shaped fashion. People in the descending part of the curve do not drink enough to benefit. In the British Regional Heart Study, alcohol intakes were measured over a 20-year follow up in about 5200 men. Subjects were classified into stable drinkers and changed drinkers. Results show that the proportion of heavy drinkers decreases with age, but there seems to be a 'hard core' of heavy drinkers. The proportion of teetotallers is constant, while the proportion of ex-drinkers – not necessarily alcoholics – increases. Except for heavy drinkers (>6 drinks daily), people remain rather stable in their drinking pattern. In contrast to most studies, occasional drinkers were used as the reference group. Shaper suggested that the level of benefit is depending on the baseline.

Overall, light drinkers have the best risk profile, while people who have given up drinking derive the least benefit from any alcohol use. Shaper concluded that the magnitude of the protective effect of regular light drinking may be exaggerated by the choice of baseline and by residual confounding.

Discussion

Question: No agreement on Shaper's conclusion that the protective effect of regular light drinking may be exaggerated by the choice of baseline. The shape of the curve will not change.

Shaper: Abstainers are an unusual group. The absolute risk will be different.

Moderate drinking reduces total mortality risk

Arthur Klatsky (USA), for the defence

Modern epidemiological population studies have shown that there is a J-shaped alcohol-mortality curve, with a decreased all-cause mortality among those who take less than 3 drinks daily. This is mainly due to a decreased CHD risk, which is the main cause of total mortality. Results of these epidemiological studies are consistent, specific and independent of numerous potential confounders. It is biologically plausible that the protective effect of alcohol against CHD includes increasing HDL-cholesterol levels and antithrombotic effects. Weaknesses and unresolved issues are minor: effect of drinking pattern, optimal amount and residual confounders. Klatsky concluded that it is virtually established that moderate drinking lowers total mortality. However, public health recommendations should be formulated with care, and advice should be given on an individual basis (heavier drinkers should reduce drinking and non-drinkers should start drink moderately, depending on age and other risk factors). There are some risks of light drinking: progression to heavier drinking, hypertension, stroke, and breast and bowel cancer.

Hans Olav Fekjær (Norway), for the prosecution

CHD and stroke are multifactorial diseases. Light drinkers and non-drinkers are mostly depressed, inactive, disabled, have a low income and low education and are unmarried. Most studies ignore (and thus do not control for) these independent psychosocial factors. Also diet is important: wine drinkers seem to have a healthier diet. The risk of death from cardiovascular disease (CVD) increases with age. In younger people alcohol is only a risk factor for unnatural death (accidents, suicide, etc.). Above 40–50 years of age, alcohol has a protective effect against death from any cause. However, most alcohol is drunk by people under 40 years of age. Thus, one should be careful to draw conclusions and look at the drinker rather than the drink.

Discussion

Question: Should there be a general recommendation: 2 glasses of alcohol per day?

Klatsky: The question was not whether or not to give a recommendation but whether moderate drinking reduces CVD and total mortality.

Question: Is there an additional effect of alcohol and physical activity?

Klatsky: Data are not available. In an Italian study physical activity added years to life but alcohol did not.

The Hon. Judge Mikko Pauno (Finland)

After summarization of the lectures by the Hon. Judge, the audience gave its verdict.

Does moderate drinking decrease CHD risk?

Nineteen attendants answered yes, 4 thought this is not a relevant proposition and 10 abstained.

Does moderate drinking reduce all-cause mortality (or increase longevity)?

Twenty-two attendants responded positively to this statement, 1 found this an irrelevant proposition and 12 abstained.

Alcohol consumption patterns in Norway – Sturla Nordlund (Norway)

Alcohol consumption in Norway has increased since 1851, but has stabilized in the past decades. Consumption data from surveys highly underestimate real alcohol use: the registered total alcohol consumption seems to be about half the estimated use. Most people are moderate drinkers, with men drinking more than women. People drink mostly on Fridays, Saturdays and during holidays. Beer is the most popular alcoholic beverage in Norway. People in the Oslo area drink mostly beer, while spirits are the most important alcoholic beverage in the central and northern areas of Norway. However, total alcohol use is highest in the Oslo area and in south-eastern and central Norway.

Cultural immunity from alcoholism: types of beverages, cultures and drinking – David Hanson (USA)

In many societies, most people drink regularly but have no alcohol problems. Hanson discussed three major issues relevant to preventing alcohol abuse. First, alcohol use is considered neutral and part of normal nutrition rather than abuse. Second, abstinence and moderate drinking are socially and morally accepted, and abuse is not permitted. Third, people learn how to drink (at home, from their parents). In some countries, there is a bias against distilled spirits. Spirits are seen as beverages of abuse, while wine is the beverage of moderation. Also drinking style, drinking occasions and drinking expectancies affect drinking levels. Drinking behaviour is influenced by norms of the society. Hanson concluded that what we think is more important than what we drink, and that the people and society are the cause of drinking problems, not alcohol itself.

Discussion

Question: Is peer influence more powerful than the influence of parents?

Hanson: Parents are more powerful than they think. In the long run, children are going to follow their parent's advice.

Question: What happens with the drinking pattern if people move to the Oslo area?

Nordlund: Probably these people will socialize; however, this issue has not been examined.

Tax policy as an instrument to minimize the harms of alcohol: the Norwegian model – Øyvind Horverak (Norway)

To keep alcohol consumption low in Norway, its price is very high. In Scandinavia, there are three tax levels: high in Norway and Iceland, intermediate in Finland and Sweden and low in Denmark. Taxes also depend on the kind of alcoholic beverage, with spirits being the most expensive. An increase in price lowers the sales. However, the unregistered sales in Norway have increased in the past 20 years (mainly spirits). This includes home production, smuggling, tax-free and border trade. Thus, sales figures do not reflect true alcohol consumption. Horverak concluded with saying that the prices of alcohol have to stay high in Norway.

Total alcohol consumption and rates of excessive use; the Ledermann model revisited – Jacques Weill (France)

Ledermann was interested (1955) in the shape of the distribution curve of alcohol consumers in any homogeneous population sample. He suggested that this distribution is log-normal. In his model, the proportion of alcohol abusers seems to increase as the squared pro capita consumption in the population they belong to (assuming there is no abstinence). Weill showed that the calculation of the maximum consumption depends on the measure (unit). He stated that Ledermann is certainly mistaken: there might be a (weak) relationship between average and maximal intake, but it has not been demonstrated that it is a dynamic one. If consumption by moderate drinkers decreases, this has probably no effect in alcoholics. Weill concluded with stating that Ledermann's theory should have remained a matter of debate between specialists, and not become an instrument of public health policy.

Discussion

Question: Would not the average population benefit most from a reduction in alcohol use (as most accidents occur among moderate drinkers)?

Weill: 2.5% of the population drink a lot and drive, causing 40% of the accidents.

Conclusion

This well organized third SMAB symposium was an interesting meeting, during which both the effects of moderate drinking on cardiovascular disease and total mortality and alcohol consumption, particularly in Norway, were discussed. The courtroom session in the morning was an interesting way of presenting scientific data. This approach made the discussion lively and interesting for the audience. The verdict by the audience indicated that opinions differ as to moderate drinking as a way to decrease CHD risk and to reduce all-cause mortality.