

O13 - Comunicación Oral/Oral communication

Estilos de vida: alcohol

Life styles: alcohol

Jueves 2 de Octubre / Thursday 2, October
18:00:00 a/to 19:30:00

Moderador/Chairperson:
Miguel Delgado

HEAVY DRINKING AND MORTALITY IN RUSSIA. A STUDY USING SIBLINGS' SURVIVAL

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Introduction: It has been proposed that heavy and/or binge drinking is an important risk factor for total and cardiovascular mortality in Russia, but there is little direct evidence on this important question. We have modified the indirect demographic methodology and applied it to a convenience population cohort to investigate predictors of mortality in Russia.

Methods: A national sample of the Russian population was interviewed in a cross-sectional survey. The participants were asked about characteristics of their eldest siblings, including drinking, smoking, their vital status and the year of birth and death (if died). The association between personal characteristics and mortality risk was estimated for the 682 male and 698 female siblings (of whom 122 and 81, respectively, died) with valid data.

Results: In both genders, mortality was strongly associated with low education and smoking. Childhood social circumstances were not associated with mortality. After adjustment for education and smoking, mortality was elevated in men and women who drank spirits at least once a month, and in men who were binge drinking (more than half a bottle of vodka per drinking session) at least once a week (adjusted RR 2.45, 95% CI 1.22-4.94) and in women who were bingeing at least once month (RR 3.94, 95% CI 1.07-14.5), compared to non-bingeing subjects. Similar association with drinking was found for cardiovascular deaths in men (there were too few cardiovascular deaths in women).

Conclusions: Drinking spirits, particularly in binges, was associated with increased mortality from all-causes and from cardiovascular diseases. Mortality was also increased in smokers and in subjects with low education. The indirect method appears to be a time- and cost-effective alternative for the study of mortality determinants in literate and numerate populations.

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ALCOHOL CONSUMPTION AND ADVERSE EFFECTS IN GENERAL SURGERY

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Background: Alcohol consumption increases community-acquired infections and affects the immune system, and in community studies increases mortality. There are only small reports (most with < 200 patients) with heavy drinkers analysing postoperative morbidity; there is no previous report relating drinking to in-hospital mortality in general surgery. The aim of this report was to analyse whether drinking, stratifying its pattern of consumption, increases the risk of nosocomial infection, admission to intensive care unit (ICU) and in-hospital mortality.

Methods: This was a prospective study on 1505 patients admitted consecutively to a Service of General Surgery in the period 1995-1997. Alcohol consumption was assessed by a structured questionnaire, considering routine (daily) drinking and weekend (and holidays) drinking. Postoperative infection was classified using the Centers for Disease Control criteria. Surveillance was extended to 30 days after hospital discharge, to detect hospital infections clinically developed at home. Relative risks and 95% confidence intervals were estimated. Confounding was controlled for by logistic regression analysis and the results were stratified by gender and drinking pattern.

Results: Most women were light drinkers and no increased risk of postoperative infection was noted. In men drinking was associated with a shorter duration of surgery, lower ASA grade fewer comorbidities. In men, heavy alcohol consumption (> 108 g/day) increased the rate of all-site nosocomial infection (adjusted odds ratio (OR) = 2.51, 95% confidence interval (CI) = 1.06-5.96) and the rate of in-hospital surgical site infection (SSI) (adjusted OR = 2.16, 95% CI = 0.84-5.58). An intake of above 72 g/day increased the rate of lower respiratory tract infection (adjusted OR = 5.96, 95% CI = 1.41-25.2). Alcohol consumption was not related to the rate of SSI after hospital discharge. When drinking was limited to weekends, there was no relationship with nosocomial infection. 29 (1.9%) patients died and 33 (2.1%) were admitted to the intensive care unit (ICU). After adjusting for age, severity of underlying disease, sex, smoking, and serum albumin, male drinkers of 72+ g/d had an increased risk of being admitted to ICU, the effect being stronger for weekday drinking (odds ratio, OR = 8.48; 95% confidence interval, CI = 1.68-42.8). A significant association was also seen between weekday drinking (72+ g/d) and death in men (OR = 7.19, 95% CI = 1.43-36.1).

Conclusion: Heavy alcohol consumption increased the risk of nosocomial infection, admission to the ICU, and mortality in men who underwent general surgical procedures.

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PATTERN OF ALCOHOL CONSUMPTION BEFORE PREGNANCY AND ALCOHOL CESSATION IN PREGNANCY

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Background: Cantabria (Spain) has the highest prevalence of alcohol consumption in women in Spain (European Union). Reduction of drinking consumption in pregnant women has been reported in many countries, although the change across the last decade has been small in several regions. The assessment of the patterns of alcohol cessation can contribute to an improvement in the efficacy of prenatal care programs. The determinants of alcohol cessation, mainly the pattern of drinking, in pregnant women in Cantabria have been assessed.

Methods: Survey on a sixth random sample of women delivering for the period 1995-1999 (n = 1521) in the reference hospital of the region. Each month for the study period all the women delivering on five days, randomly selected in advance (using the random number generator of the program EpiInfo 6.0), were asked to participate. Information was obtained from personal interview (data on alcohol consumption), clinical chart and prenatal care records. Alcohol consumption was assessed by a structured questionnaire, considering routine (daily) drinking and weekend (and holidays) drinking. Relative risks (RR) and 95% confidence intervals (CI) were estimated. Multivariable analyses were carried out using logistic regression.

Results: Nearly half (49.5%) women drank regularly before pregnancy and 22.7% during pregnancy. The average alcohol consumption in drinkers before pregnancy was 9 g/day, and 6.6 g/day during pregnancy. The sociodemographic variables favouring alcohol cessation during pregnancy were high education level and smoking cessation, whereas high social class, advanced maternal age and employment out home decreased the rate of alcohol cessation. There was a significant inverse trend with the amount of alcohol consumed at weekdays (p < 0.001), not observed in those drinking only at weekends. In this latter group, the consumption of only spirits increased the rate of alcohol cessation (adjusted RR = 1.33, 95% CI 1.08-1.50). The consumption of wine (either daily or at weekends) decreased the rate of alcohol cessation in pregnancy.

Conclusions: The pattern of drinking influenced the rate of alcohol cessation: the heavier the alcohol consumption at weekdays the lower the rate of alcohol cessation. Wine consumers were more reluctant to quit alcohol drinking, whereas women drinking only spirits at weekends increased their rate of alcohol cessation.

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EMPIRICAL ASSESSMENT OF ALCOHOL MISCLASSIFICATION AND ITS CONSEQUENCES ON SEVERAL ASSOCIATIONS WITH ADVERSE OUTCOMES IN HOSPITALIZED PATIENTS

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Background: Deviations of the data collection protocol can introduce a misclassification bias. The objective of this report is to analyze the consequences of alcohol drinking misclassification on the association with several adverse effects during hospitalization.

Methods: This was a prospective study on 2989 patients admitted consecutively to a Service of General Surgery in two periods 1992-1994 and 1995-1997. Alcohol consumption was assessed by a structured questionnaire, considering routine (daily) drinking and weekend (and holidays) drinking. In the first period, interviewers introduced a general question ("do you drink?"), not in the protocol, to shortcut data collection. In the second period, this was corrected. Postoperative infection was classified using the Centers for Disease Control criteria. Surveillance was extended to 30 days after hospital discharge, to detect hospital infections clinically developed at home. Relative risks and 95% confidence intervals were estimated. Confounding was controlled for by logistic regression analysis and the results were stratified by gender and drinking pattern.

Results: In the first part of a prospective study on the hospital course of surgical patients an unusual low frequency of alcohol drinking was found. An interview with data collectors revealed that they, by their own, have introduced a general introductory question "Do you drink?" to shorten the questionnaire on alcohol. In this study drinking was unrelated to any adverse effect during hospitalization. In the second part, done with the same methodology, data collectors agreed to adhere the questionnaire on drinking, in which alcohol drinking was asked beginning with most socially accepted drinking (while eating and in weekends) and ending with less undesirable behaviors (out of meals, early in the morning, and in weekdays). There were no major differences between the patients' characteristics of the two parts of the study. The frequency of alcohol drinking increased from 34.5% to 57.5%; this increase was roughly similar according sex, age, severity of the underlying disease, and other variables. Alcohol drinking of 72+ g/day in this second part increased the risk of nosocomial lower respiratory tract infection (adjusted OR = 5.2, 95% confidence interval -CI-: 1.0-26.3), admission to intensive care unit (adjusted OR = 8.8, 95% CI: 1.7-45.1), and in-hospital death (adjusted OR = 4.6, 95% CI: 1.1-19.6). These associations are supported by scientific literature.

Conclusion: A deviation from data collection protocol produced misclassification of alcohol drinking rendering non-significant relationships with known adverse effects of drinking.

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MOTOR VEHICLE INJURY CASES WITH POSITIVITY TO ALCOHOL IN HOSPITAL EMERGENCY DEPARTMENTS: DIFFERENTIAL FEATURES

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Background: The importance of alcohol in motor vehicle crashes (MVC) is well documented in the scientific literature. Nevertheless, there is little information in Spain on the socio-demographic characteristics of MVC injury cases attending emergency departments and who appear to be positive to the presence of alcohol. Besides, in recent years, there have been important changes regarding drinking patterns, together with a lowering of the maximum blood alcohol levels (BAL) in drivers, from 0.8 to 0.5 g/l. Screening for alcohol in emergency departments in association with secondary prevention activities (such as brief interventions) seems to be a promising intervention to decrease alcohol consumption among MVC injury cases and, therefore, the risk of subsequent road crashes.

Aim: The objective of the study was the identification of differential features depending on alcohol positivity in MVC injury cases attended to in the emergency department of a trauma centre in Barcelona, Spain.

Subjects and methods: Cross-sectional study in the context of the IBAT study (evaluation of effectiveness of a brief intervention in the reduction of alcohol intake). Cases older than 18 years were included in the study if they had suffered a MVC within 6 hours before their arrival to the emergency department of Hospital de Traumatologia Vall d'Hebrón, between July 2001 and February 2002. A saliva screening test was used to assess BAL, although a urinary or a blood test were also used in a small proportion of cases. Descriptive statistics as well as multivariate logistic regression models were fit to assess the relationship between selected independent variables and the presence of BAL.

Results: The study sample included 431 patients, with an average age of 30.2 years in men and 34.8 years in women. Two thirds of the injured cases were drivers, cars being the main vehicle involved in crashes (51.8%). Fifty-nine patients had a positive alcohol test (13.7% of the sample). A statistically significant and independent association was found between positive BAL and being a male (OR: 2.38 [95% CI: 1.12-5.05]), being admitted to the hospital (OR: 2.59 [95% CI: 1.30-5.14]) and suffering a MVC on a week-end (OR: 2.98 [95% CI: 1.64-5.41]) and night and early morning crashes (OR: 3.48 [IC 95%: 1.67 - 7.24]).

Conclusions: The study has identified four variables (sex, hospitalisation -as a proxy for severity-, day and time of the MVC) as factors associated with alcohol positivity in MVC crashes. This information is useful to target subgroups of MVC injury cases with a greater likelihood of positive BAL, in support of the implementation of more active and efficient screening and secondary prevention activities within acute care settings to help tackling MVC occurrence.

ALCOHOL CONSUMPTION AND *HELICOBACTER PYLORI* INFECTION: REVIEW AND META-ANALYSIS

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Introduction: Animal and in vitro experimentation suggest that alcohol plays a role preventing or eliminating *Helicobacter pylori* infection. However, the assessment of the relation between alcohol consumption and the prevalence of *H. pylori* infection yielded inconsistent findings that could be due to methodological flaws or represent accurate observations of a relation that varies among population groups.

We aimed to review epidemiological evidence on the association between the consumption of alcoholic beverages and *H. pylori* infection, to identify sources of heterogeneity across studies, and to provide summary quantitative estimates of the association between alcohol intake and infection.

Methods: We identified publications addressing the association between *H. pylori* infection and the consumption of alcoholic beverages through Pubmed and cross reference search. In the pooled analysis we used log odds ratios (OR) and corresponding variance concerning each level of alcohol consumption, published or calculated from published data. Pooled estimates of the effect of alcohol consumption on the risk of *H. pylori* infection obtained in studies with three or more levels of alcohol exposure was based on meta-regression models and heterogeneity among studies was evaluated according to the methods described by Greenland and Longnecker. Additionally to linear terms of alcohol consumption, several functions were tested to model the relationship between alcohol intake and the risk of infection to appreciate possible J- or U-shaped curves. Possible causes of heterogeneity were explored by stratifying analysis according to study characteristics.

Results: We analyzed data from 15 studies with at least three categories of alcohol consumption and including drinkers of more than two drinks/day. Pooled OR estimates for infection in consumers of one drink/day compared with non-drinkers were 0.98 (95% confidence interval (CI) 0.95 - 1.01) in 4 studies using the urea breath test in samples with a prevalence of infection below 50%. In studies evaluating infection with other methods, the OR was 1.02 (95% CI 0.98 - 1.06) when the prevalence of infection was above 50% and 0.84 (95% CI 0.77 - 0.91) when *H. pylori* prevalence was lower than 50%. In the former group of studies, the association between alcohol consumption and infection was monotonic when adjustments were performed for smoking or socioeconomic status, and U-shaped in two studies where no adjustments were made.

Conclusion: Although the shape of the association can change with a finer adjustment for confounders, our results suggest that the association between the consumption of alcoholic beverages and *H. pylori* infection is population determined, with an inverse association observed only when the prevalence of infection is low.