

Aggressiveness, family history of alcoholism, and the heart rate response to alcohol intoxication.

Assaad J.M; Pihl R.O; Seguin J.R; Nagin D; Vitaro F; Carbonneau R et al. *Experimental and Clinical Psychopharmacology* 11(2): 158-166, 2003, 2003. (55 refs.)

Some sons of male alcoholics (SOMAs) are characterized by an increased heart rate (HR) response to alcohol intoxication, which is thought to reflect increased sensitivity to alcohol-induced reward. Such a response has also been related to increased physical aggression. However, the confounding effect of aggression in SOMAs may be obscuring the interpretation of these findings. The HR response to alcohol was therefore assessed in 4 groups: high/low aggressive SOMAs and high/low aggressive non-SOMAs. Results indicate that aggressive SOMAs had the highest intoxicated HR response and that they reported the most alcohol consumption. This suggests that in some cases the high comorbidity between alcohol misuse and aggression is related to an increased sensitivity to alcohol-induced reward. Copyright 2003, American Psychological Association.

Alcohol consumption and liver cirrhosis mortality with and without mention of alcohol—the case of Canada.

Ramstedt M. *Addiction* 98(9): 1267-1276, 2003. (27 refs.)

Aims: To analyse post-war variations in per capita alcohol consumption in relation to gender-specific liver cirrhosis mortality in Canadian provinces and to assess the extent to which alcohol bears a different relation to cirrhosis deaths with mention of alcohol (alcoholic cirrhosis) compared to cirrhosis deaths without mention of alcohol (non-alcoholic cirrhosis). Data and method: Annual liver cirrhosis mortality rates by 5-year age groups were converted into gender-specific and age-adjusted mortality rates. Outcome measures included total cirrhosis—the conventional measure of liver cirrhosis—alcoholic cirrhosis and non-alcoholic cirrhosis. Per capita alcohol consumption was measured by alcohol sales and weighted with a 10-year distributed lag model. A graphical analysis was used to examine the regional relationship and the Box-Jenkins technique for time-series analysis was used to estimate the temporal relationship. Findings: Geographical variations in

alcohol consumption corresponded to variations in total liver cirrhosis and particularly alcoholic cirrhosis, whereas non-alcoholic cirrhosis rates were not associated geographically with alcohol consumption. In general, for all provinces, time-series analyses revealed positive and statistically significant effects of changes in alcohol consumption on cirrhosis mortality. In Canada at large, a 1-litre increase in per capita consumption was associated with a 17% increase in male total cirrhosis rates and a 13% increase in female total cirrhosis rates. Alcohol consumption had a stronger impact on alcoholic cirrhosis, which increased by fully 30% per litre increase in alcohol per capita for men and women. Although the effect on the non-alcoholic cirrhosis rate was weaker (12% for men and 7% for women) it was nevertheless statistically significant and suggests that a large proportion of these deaths may actually be alcohol-related. Conclusions: Some well-established findings in alcohol research were confirmed by the Canadian experience: per capita alcohol consumption is related closely to death rates from liver cirrhosis and alcohol-related deaths tend to be under-reported in mortality statistics. Copyright 2003, Society for the Study of Addiction to Alcohol and Other Drugs.

Alcohol intoxication increases morbidity in drivers involved in motor vehicle accidents.

Shih HC; Hu SC; Yang CC; Ko TJ; Wu JK; Lee CH. *American Journal of Emergency Medicine* 21(2): 91-94, 2003. (25 refs.)

The correlation between alcohol intoxication and injury severity, morbidity, and mortality in drivers involved in motor vehicle accidents was prospectively studied. The research sample included 923 injury patients, of whom 421 were legally intoxicated and 502 were nonintoxicated. The following results of the study were seen: (1) a significantly higher injury severity score (ISS), lower Glasgow Coma Score, and lower systolic blood pressure with intoxication; (2) a higher rate of noncollision accidents for older subjects, male subjects, habitual drinkers, and those lacking or not using safety gear; (3) after logistic regression analysis, no association between alcohol intoxication and severe injury; (4) a finding that alcohol intoxication was one predictor of morbidity; and (5) a finding that severe head injury was the only predictor of mortality. It is concluded that alcohol intoxication is not associated with increased

incidence of severe injury or mortality in drivers involved in motor vehicle crashes. It is, however, a significant predictor for morbidity after injury. Copyright 2003, W.B. Saunders Co.

Anesthetic implications of drug abuse in pregnancy.

Kuczkowski KM. *Journal of Clinical Anesthesia* 15(5): 382-394, 2003. (158 refs.)

Substance abuse has crossed social, economic, and geographic borders and-throughout the world-remains one of the major problems facing society today. The prevalence of substance abuse in young adults (including women) has increased markedly over the past 20 years. Nearly 90% of drug-abusing women are of childbearing age. Consequently, it is not unusual to encounter Pregnant women who abuse illicit drugs, as numerous case reports of drug abuse in pregnancy confirm. The diverse clinical manifestations of drug abuse combined with physiologic changes of pregnancy, and pathophysiology of coexisting pregnancy-related disease may lead to life-threatening complications and significantly impact the practice of obstetrical anesthesia. Regardless of the drug(s) ingested and clinical manifestations, it is always difficult to predict the exact anesthetic implications in chemically dependent patients. Copyright 2003, Elsevier Science Inc.

Bupropion-induced somnambulism.

Khazaal Y; Krenz S; Zullino DF. *Addiction Biology* 8(3): 359-362, 2003. (28 refs.)

Whereas there are some case reports of bupropion-induced vivid dreaming and nightmares, until now it has not been associated with somnambulism. A case is reported of a patient treated with bupropion as a smoking cessation medication, who developed somnambulism during nicotine withdrawal. Furthermore, the sleepwalking episodes were associated with eating behaviour. Amnesia was reported for all episodes. As, on one hand, bupropion is a noradrenergic and dopaminergic drug and nicotine withdrawal, on the other hand, is associated with alterations in monoaminergic functions, an interaction at the level of these neurotransmitters is suggested as the underlying mechanism. Copyright 2003, Carfax Publishing.

Can stopping smoking cause hypertension?.

McEwen A; West R. *Nicotine & Tobacco Research*. 4(3): 349-350, 2002. (8 refs.)

Controlling for other variables, smokers have lower blood pressure than non-smokers, raising the question of whether smoking cessation may lead to increases in blood pressure. The authors present a case in which this occurred. They also initiated a study of blood pressure

changes among those embarking upon smoking cessation program, and report their preliminary results. It is evident that smoking cessation yields significant health dividends, however for a sub-set increases in blood pressure may occur and this suggests monitoring is warranted. Copyright 2002, Carfax Publishing.

Cannabinoid modulation of sensitivity to time.

Crystal JD; Maxwell KW; Hohmann AG. *Behavioural Brain Research* 144(1/2): 57-66, 2003. (53 refs.)

The present studies used a psychophysical approach to examine the effect of cannabinoids on temporal processing. Rats trained to discriminate 2- and 8-s (Experiment 1, n = 72) and 4- and 16-s (Experiment 2, n = 60) intervals were tested with intermediate durations. Psychophysical functions for time, relating the probability of judging a duration as "long" as a function of the actual stimulus durations, were characterized by measures of central tendency (point of subjective equality, PSE) and variability (Weber fraction, WF). The potent cannabinoid agonist, WIN55,212-2 (1-3 mg/kg), produced a dose-related decrease in sensitivity to time (i.e. increase in WF) without systematically affecting PSE (Experiments 1 and 2). The central cannabinoid CB1 antagonist, SR 141716A (1-3 mg/kg), did not alter either the WF or PSE (Experiments 1 and 2). Coadministration of SR 141716A with WIN55,212-2 blocked the effect of the agonist on WF (Experiment 2), suggesting that the WF effect is mediated by actions at cannabinoid CB1 receptors. Computational modeling with an information processing theory of timing suggests that the reduction in sensitivity to time can be attributed to a disorder of attention. Copyright 2003, Elsevier Science.

Cocaine-body-packing. Infrequent indication for laparotomy.

Schaper A; Hofmann R; Ebbecke M; Desel H; Langer C. *Chirurg* 74(7): 626-631, 2003. (32 refs.)

Introduction. Body-packers or "mules" are drug smugglers who swallow cocaine-filled condoms in order to conceal them during air travel. Body pushers hide drug packages in the rectum or vagina. In a cooperative effort between the Frankfurt Airport Clinic and the GIZ-Nord (Goettingen University poison control center), we performed a retrospective study and developed an algorithm for the problem of "rupture of a cocaine-filled condom in a body-packer." Methods. In a retrospective analysis, the data of all cocaine body-packers and body pushers who were identified at Frankfurt International Airport from 1985 to 2001 were evaluated. Temporal development, demographic data, and surgical aspects were of special interest. Results. From 1985 to 2001 a

total of 280 body pushers and 2880 body-packers were identified: 63 "mules" (2.2%) developed symptoms of severe cocaine intoxication following rupture of a condom. Emergency laparotomy was performed on 20 patients (i.e., 32% of all symptomatic body-packers) and the condoms were removed, while 43 body-packers (68%) died before surgical therapy could be initiated. All operated patients survived. Conclusion. Severe cocaine intoxication is life threatening. Patients die from complications caused by generalized vasoconstriction. If the reason for severe cocaine intoxication is the rupture of a cocaine-filled condom, the only possible therapy consists of immediate laparotomy for removal of the condoms. Copyright 2003, Springer-Verlag.

A prospective study of maternal smoking and spontaneous abortion.

Wisborg K; Kesmodel U; Henriksen TB; Hedegaard M; Secher NJ. *Acta Obstetrica et Gynecologica Scandinavica* 82(10): 936-941, 2003. (24 refs.)

Background. Cigarette smoking has been considered a risk factor for spontaneous abortion, but conclusions from many studies may be impaired by methodological problems. Studies are required that use data on smoking habits collected before knowledge about outcome of pregnancy and in which adjustment is made for potential confounders. Methods. All Danish-speaking pregnant women booking for delivery at the Department of Obstetrics and Gynecology, Aarhus University Hospital, from September 1989 to August 1996 were invited to participate in the study (n=24608 pregnancies, including 321 spontaneous abortions and 100 induced abortions). Information about smoking habits before pregnancy and during the first trimester was obtained from self-administered questionnaires before the knowledge about pregnancy outcome. Information about spontaneous and induced abortions was obtained from the Danish National Patient Registry. We used Cox regression analyses with delayed entry (left truncation) for analyses, and hazard ratios to express the association between smoking and spontaneous abortion. Multivariate analyses were performed using a model including alcohol and coffee intake during pregnancy, maternal age, marital status, occupation, education, prepregnancy body mass index, and parity. Results. Overall, 104 (1.3%) of those contributing time at risk in the first trimester experienced a spontaneous abortion in the first trimester, and 217 (0.9%) of those contributing time at risk in the second trimester experienced a second-trimester abortion. We found no association between smoking and first- and second-trimester abortions. Adjustment for alcohol, coffee, maternal age, marital status, occupation, education, prepregnancy body

mass index and parity did not change the result substantially. Conclusion. Our study did not support findings from previous studies of an association between smoking and spontaneous abortion. Copyright 2003, Munksgaard Int. Publ, Ltd.

Death rates from ecstasy (MDMA, MDA) and polydrug use in England and Wales 1996-2002.

Schifano F; Oyefeso A; Corkery J; Cobain K; Jambert-Gray R; Martinotti G et al. *Human Psychopharmacology. Clinical and Experimental* 18(7): 519-524, 2003. (33 refs.)

The present study reports on all deaths related to taking ecstasy (alone, or in a polydrug combination) occurring in England and Wales in the time frame August 1996-April 2002. Data presented here are based on all information recorded in the National Programme on Substance Abuse Deaths (np-SAD) database. The np-SAD regularly receives all information on drug related deaths in addicts and non addicts from coroners. A total of 202 ecstasy-related fatalities occurred in the chosen time-frame, showing a steady increase in the number of deaths each year. The ratio male:female was 4:1 and 3 of 4 victims were younger than 29. In 17% of cases ecstasy was the sole drug implicated in death and in the remaining cases a number of other drugs (mostly alcohol, cocaine, amphetamines and opiates) have been found. According to toxicology results, MDMA accounted for 86% of cases and MDA for 13% of cases; single deaths were associated with MDEA and PMA. This is the largest sample of ecstasy related deaths so far; possible explanations are given for the observed steady increase in ecstasy-related deaths and a tentative 'rationale' for this polypharmacy combination is then proposed. Copyright 2003, John Wiley & Sons, Ltd.

Developmental trajectories of cocaine-and-other-drug-exposed and non-cocaine-exposed children.

Mayes LC; Cicchetti D; Acharyya S; Zhang HP. *Journal of Developmental and Behavioral Pediatrics* 24(5): 323-335, 2003. (66 refs.)

Few data are available concerning the trajectories of mental and motor development across time for cocaine-exposed children compared with others. Findings are presented from individual group curve analyses of the mental and motor development measured by the Bayley Scales of Infant Development-II (BSID-II) on repeated visits from 3 through 36 months of a group of prenatally cocaine-and-other-drug exposed children (n = 265) compared with those exposed to no drugs (n = 129) or no-cocaine-but-other-drugs (n = 66), including alcohol and/or tobacco. Across time, there was a general decline in motor performance but cocaine-exposed-infants

showed a trend toward a greater decrease than children in the other two comparison groups. For mental performance, there was also a decline across age but only through 24 months and no differences in the trajectory of the cocaine-exposed group compared to the other two. And, across all assessment ages, cocaine-exposed-infants showed lower BSID-II mental performance compared to both non-drug and non-cocaine-exposed children. Results suggest that prenatally cocaine-exposed children show delayed developmental indices, particularly in their mental performance, but their trajectories across time are similar to those from impoverished, non-cocaine-exposed groups. Copyright 2003, Lippincott, Williams and Wilkens.

Environmental tobacco smoke and ischemic heart disease. (review).

Law MR; Wald NJ. *Progress in Cardiovascular Disease* 46(1): 31-38, 2003. (38 refs.)

Cohort and case control studies show a 30% excess risk of ischemic heart disease in nonsmokers whose spouses smoke compared with that in nonsmokers whose spouses do not smoke. There is a nonlinear dose-response; the excess risk from actively smoking 20 cigarettes/day is only 80%. Large cohort studies of active smoking support the nonlinear dose-response (the excess risk in smokers of 5 cigarettes/day is about 50%). Animal studies show a pronounced vascular effect of environmental tobacco smoke. In experimental studies passive and active smoking have similar effects on platelet aggregation. The collective evidence supports a significant effect of low dose tobacco smoke exposure in causing ischaemic heart disease. Copyright 2003, W. B. Saunders Co.

Does stimulant treatment place children at risk for adult substance abuse? A controlled, prospective follow-up study.

Mannuzza S; Klein RG; Moulton JL. *Journal of Child and Adolescent Psychopharmacology* 13(3): 273-282, 2003. (40 refs.)

The sensitization hypothesis posits a neuroadaptation model in which exposure to stimulants results in dopamine system alterations that, in turn, increase sensitivity to the reinforcing effects of the previously experienced drug. This study examines whether stimulant treatment in childhood confers increased risk for substance use and abuse in later life, as the model predicts. Children, ages 7-12 years, with developmental reading disorders but no other psychiatric diagnoses were randomly assigned to methylphenidate treatment (n = 43) or matching placebo (n = 66) for 12-18 weeks. At

16-year follow-up (mean age 26 years), 94% of probands and 129 normal comparisons were evaluated by trained clinicians who were blind to group and treatment status. There were no significant differences between groups on the prevalence of substance use disorder (abuse or dependence) for any of the seven drug categories studied. There were no significant group differences among substance abusers regarding age at onset, duration, or number of episodes of substance abuse and dependence. Significantly more normals (60%) than treated (46%) and untreated probands (41%) ever used stimulants in adolescence or adulthood. Findings from this randomized trial contradict the notion that stimulant treatment in childhood leads to substance use or abuse in later life. The sensitization hypothesis is not supported. Copyright 2003, Mary Ann Liebert, Inc. Publishing.

Fragmentary and en bloc blackouts: Similarity and distinction among episodes of alcohol-induced memory loss.

Hartzler B; Fromme K. *Journal of Studies on Alcohol* 64(4): 547-550, 2003. (20 refs.)

En bloc and fragmentary blackouts are distinguishable forms of alcohol-induced amnesia. The former are instances of full and permanent memory loss for intoxicated events, whereas the latter are episodes for which retrieval of experiences is facilitated by provision of cues. The current study assessed their characteristics as reported by a group of heavy drinking young adults. A sample of 136 young adult volunteers (54% male, mean age=22.71) were administered a Time-Line Follow-Back assessment, expanded to gather descriptive information about the occurrence and characteristics of en bloc and fragmentary blackouts. Although overall reporting of blackouts by the sample mirrored rates reported in prior research, prevalence and incidence of fragmentary blackouts were more than threefold those of en bloc blackouts. A surprising finding was that the two blackout types exhibited a similar range and distribution of corresponding blood alcohol concentrations. Most en bloc blackouts involved concurrent use of illicit substances; polysubstance use was reported for few fragmentary blackouts. In addition, subjective evaluations of en bloc blackouts were quite negative, whereas fragmentary blackouts were evaluated as only mildly negative. It is concluded that beyond nosological distinctions, en bloc and fragmentary blackouts differ on several descriptive dimensions. The collective findings expand understanding of diversity in experiences that accompany memory loss after drinking. Copyright 2003, Alcohol Research Documentation, Inc.