

Intranasal cocaine in humans: Effects of sex and menstrual cycle.

Collins SL; Evans SM; Foltin RW; Haney M. *Pharmacology, Biochemistry and Behavior* 86(1): 117-124, 2007. (30 refs.)

Studies have shown that smoked and intravenous cocaine's effects differ in cocaine-dependent women compared to men and across the menstrual cycle. However, this has not been systematically investigated with intranasal cocaine. Thus, a range of intranasal cocaine doses was examined in cocaine-dependent women across the menstrual cycle. Female cocaine users were admitted to the hospital once during the luteal phase and once during the follicular phase of their menstrual cycle; menstrual cycle phase during admissions was counterbalanced. During each admission, an intranasal cocaine dose-response curve (0.06, 0.34, 0.69 and 1.37 mg/kg) was determined during four laboratory sessions. Cocaine produced similar dose-related increases in ratings of "positive" subjective effects, cardiovascular effects and cocaine plasma levels in women in both menstrual cycle phases. To assess sex differences in the effects of intranasal cocaine, the current data were compared to published data collected in men using an identical procedure. Cocaine produced similar dose-related increases in ratings of positive subjective effects, cardiovascular effects and cocaine plasma levels in men and women. Thus, in contrast to studies examining smoked or intravenous cocaine administration, there were no sex differences or menstrual cycle effects on the subjective or cardiovascular response to intranasal cocaine, suggesting that the influence of sex and menstrual cycle on cocaine's effects vary as a function of route of administration. Copyright 2007, Elsevier Science.

Trends in rates of hospitalization with a diagnosis of substance abuse among reproductive-age women, 1998 to 2003.

Cox S; Johnson CH; Meikle S; Jamieson DJ; Posner SF. *Women's Health Issues* 17(2): 75-83, 2007. (33 refs.)

Objective. To describe trends in hospitalizations with a diagnosis of substance abuse among reproductive-age women from 1998-2003. Methods. Data were obtained from the Healthcare Cost and Utilization Project

Nationwide Inpatient Sample. Hospitalizations with a diagnosis of substance abuse were categorized into subgroups by age, primary expected payer, substance-specific diagnoses, concomitance, and hospital location. Trends in hospitalization rates per 100,000 women aged 15-44 were tested using a weighted least-squares method. Results. From 1998-2003, there was no change in the overall rate of hospitalization with a diagnosis of substance abuse among women aged 15-44. Alcohol abuse was the most common substance-specific diagnosis. The rate of hospitalization with a diagnosis of cocaine abuse decreased 22%; for a diagnosis of cannabis abuse, the rate increased 35%. The rate of hospitalization with a diagnosis of amphetamine abuse doubled from 1998-2003. Among women aged 15-24, the rate of hospitalization with a diagnosis of substance abuse increased 23%. Conclusion. Although we did not observe a change in the overall rate of substance-abuse hospitalization among reproductive-age women, there were dramatic changes in the rate of substance-specific diagnoses. These data may be used to quantify emerging trends in substance abuse and promote the use of hospital-based interventions. Copyright 2007, Elsevier Science.

Sociodemographic profile of women entering a military substance use disorder treatment center.

Dove MB; Joseph HJ. *Military Medicine* 172(3): 283-287, 2007. (22 refs.)

This retrospective study reviewed medical records to determine sociodemographic characteristics of women in a substance use treatment center at a Pacific Regional Medical Command facility. Data were collected from records between September 1, 1999, and August 31, 2002. Three questions were investigated, as follows. (1) What are the sociodemographic characteristics of women entering substance abuse treatment? (2) Are there coexisting conditions (psychiatric history and/or family history of abuse or psychiatric conditions) that accompany the substance abuse problem? (3) What are the referral sources for patients entering treatment? Data were analyzed by using descriptive statistics. The sample was primarily Caucasian, between 18 and 25 years of age. The most frequently occurring conditions were depression and anxiety. The smallest number of referrals was from primary care managers. The findings support the need

for thorough screening and assessment for substance use in women and assessment of primary care managers' compliance, knowledge, and skills in evaluating substance use in women. Copyright 2007, Association of Medical Surgeons US.

Metabolic and genetic factors contributing to alcohol induced effects and fetal alcohol syndrome. (review).

Gemma S; Vichi S; Testai E. *Neuroscience and Biobehavioral Reviews* 31(2): 221-229, 2007. (53 refs.)

Alcohol-related damages on newborns and infants include a wide variety of complications from facial anomalies to neurodevelopmental delay, known as fetal alcohol syndrome (FAS). However, only less than 10% of women drinking alcohol during pregnancy have children with FAS. Understanding the risk factors increasing the probability for newborn exposed in utero to alcohol to develop FAS is therefore a key issue. The involvement of genetics as a one risk factor in FAS has been suggested by animal models and by molecular epidemiological studies on different populations, bearing allelic variants for those enzymes, such as ADH e CYP2E1, involved in ethanol metabolism. Indeed, one of the major factors determining the peak blood alcohol exposure to the fetus is the metabolic activity of the mother, in addition to placental and fetal metabolism, explaining, at least partially, the risk of FAS. The different rates of ethanol metabolism may be the result of genetic polymorphisms, the most relevant of which have been described in the paper. Copyright 2007, Elsevier Science.

Acupuncture treatment for women with concurrent substance use and anxiety/depression: An effective alternative therapy?

Courbasson CMA; de Sorkin AA; Dullerud B; Van Wyk L. *Family & Community Health* 30(2): 112-120, 2007. (41 refs.)

This exploratory study evaluated the benefits of adding auricular acupuncture to a 21-day outpatient structured psychoeducational treatment program for women with concurrent substance use problems, anxiety, and depression. Women receiving acupuncture (n = 185) reported having reduced physiological cravings for substances, felt significantly less depressed, less anxious, and were better able to reflect on and resolve difficulties than women in the control group (n = 101). It was found that auricular acupuncture, as an adjunct therapy to a comprehensive psychoeducational treatment program for women with addictions, shows promise in being an effective, more viable treatment alternative to anxiolytics. Copyright 2007, Lippincott, Williams & Wilkins.

Epidemiology of drug and alcohol use in young women.

Crome IB; Kumar MT. *Seminars in Fetal & Neonatal Medicine* 12(2): 98-105, 2007. (57 refs.)

An understanding of the epidemiology of alcohol and drug use in young women is important for three main reasons: (1) to appreciate that substance use, misuse, harmful use and dependence are associated with considerable mortality and physical and psychological morbidity; (2) to understand the nature and extent of these problems and the Likely impact on the fetus, neonate and infant through childhood to adolescence; and (3) to utilize this information as part of a needs assessment to develop effective services, which detect problems and deliver appropriate interventions. Although abstention rates are consistently higher among women than men in general, substance misuse is increasing in young women. Simultaneously, there is great variability in prevalence rates in different countries, regions of countries and in different ethnic groups. This can be explained in part by differences in definitions, measurement techniques, availability, price, social acceptability, seizure and arrest policies, and in patterns and modes of use. During pregnancy, up to 15% of women may be using alcohol and about 5% may be using illicit drugs. The proportion of women using substances is less at term than in the early stages of pregnancy. Despite this, substance use rises sharply in the first 6 months postpartum. Detection of substance use in obstetric units is low but perinatal substance misuse intervention reduces adverse neonatal outcomes. On the basis of the relatively high rate of substance use disorders during pregnancy, effective screening and intervention strategies should be implemented. Copyright 2007, Elsevier Science.

Locked up means locked out: Women, addiction and incarceration.

Alleyne V. *Women & Therapy* 29(3-4): 181-194, 2006. (24 refs.)

In one of the quietest but most significant social phenomena of our time, national statistics indicate that the number of incarcerated women has quadrupled over the last 20 years. The status of women of color in America, already precarious, is further eroded under this new world order, as 54% of the incarcerated female population is African American or Latina. Harsh drug laws, mandatory sentencing, and policing strategies which focus on smaller crimes have succeeded in netting large numbers of mothers, grandmothers, single breadwinners and other women whose primary offenses prior to arrest were being poor and often having a substance abuse problem. Once incarcerated, new difficulties are visited upon these

women, including family dissolution, precipitous declines in mental health, and often loss of child custody as legal cases wend their way slowly through the system. The commonly reported statistic that 80% of all crimes committed have drug involvement holds true for women as well. Most women in prison are untreated substance abusers with high recidivism rates that correlate with greater addiction severity. Typically, each return to incarceration signifies a deeper level of addiction, with associated declines in health, employment opportunity, and social functioning. The quantum increase in incarceration for women is linked directly to drug and alcohol addiction, yet little has been done to address the issue. Many prison systems are ill equipped to handle the influx of women, from a variety of perspectives. County jails, historically designed to be shorter term holding areas for those with minor offenses or awaiting a state prison bed, are now handling many more female prisoners for much longer periods of time. Social, health, and substance abuse services for these women are grossly inadequate, if available at all. This article will address the double bind of addiction and incarceration that women face today in unprecedented numbers. It will discuss, via case study and review, the precipitous erosion of mental health and family functioning that typically occurs when substance abusing women are incarcerated instead of treated. The paper will discuss the national silence which has surrounded this very public epidemic, particularly regarding the country's discomfort and resulting inability to confront the debilitating effects of addiction and incarceration on women and families. Finally, this paper will discuss effective strategies for change, arguing that a first step must include an appreciation for the unique perspective and experiences that addicted women have and bring to a correctional environment. Copyright 2006, Haworth Press.

Management of women who use drugs during pregnancy.

Wright A; Walker J. *Seminars in Fetal and Neonatal Medicine* 12(2): 114-118, 2007. (25 refs.)

Substance abuse in pregnancy is associated with significant maternal and fetal morbidity. The complication for care is that the mother is the cause of the problem that potentially harms not only herself but also her unborn child. The abuse is further complicated by the associated legal, social and environmental problems. The aim for the obstetrician is to provide a non-judgemental, supportive environment to minimise the risk, not only during pregnancy and the neonatal period, but also in the long term. To achieve this, caregivers; need to be multidisciplinary and tolerant of the mother's problem. The aim of antenatal care is to

reduce risk, which does not mean that the mother must abstain from drug use. The aim is to keep her within the care system and encourage her to take responsibility for her situation. No-one should be turned away or denied help as, ultimately, this is harmful to the mother and her baby. To provide this care, the obstetrician needs support from midwives, addiction counsellors, social workers, neonatologists, health visitors and general practitioners. Whereas the healthcare structure in the UK lends itself to this approach, this is not the case in other parts of the world. However, programmes of comprehensive antenatal care do not universally improve the health of the mother and the outcome of her pregnancy. The specifics of the care provided are probably less important than the quality of the care given and the degree of engagement of the individual. This chapter outlines the problems and potential solutions with reference to the service in Leeds in the UK. Copyright 2007, Elsevier Science.

Relational Psychotherapy Mothers' Group: A randomized clinical trial for substance abusing mothers.

Luthar SS; Suchman NE; Altomare M. *Development and Psychopathology* 19(1): 243-261, 2007. (69 refs.) The purpose of this study was to ascertain the effectiveness of the Relational Psychotherapy Mothers' Group (RPMG), a supportive parenting group intervention for substance abusing women. Sixty mothers receiving RPMG were compared to 67 women receiving recovery training (RT); both treatments supplemented treatment in the methadone clinics. At the end of the 6-month treatment period, RPMG mothers showed marginally significant improvement on child maltreatment (self-reported) and cocaine abuse based on urinalyses when compared with RT mothers; notably, children of RPMG mothers reported significantly greater improvement in emotional adjustment and depression than children of RT mothers. At 6 months follow-up, however, treatment gains were no longer apparent. Overall, the findings suggest that whereas supportive parenting interventions for substance abusing women do have some preventive potential, abrupt cessation of the therapeutic program could have deleterious consequences. Copyright 2007, Cambridge University Press.

Women's smoking history prior to entering the US Navy: A prospective predictor of performance.

Conway TL; Woodruff SI; Hervig LK. *Tobacco Control* 16(2): 79-84, 2007. (35 refs.)

Objective: To examine whether women's tobacco use prior to entering the US Navy is predictive of subsequent career performance. A priori predictions were that smoking at entry into the Navy would be

related to early attrition, poorer job performance, more disciplinary problems and lower likelihood of re-enlistment. Methods: A prospective cohort analysis of 5487 women entering the US Navy between March 1996 and March 1997 was conducted. Navy attrition/retention and career performance measures, such as time in service, early attrition, type of discharge, misconduct, number of promotions, demotions and unauthorised absences, highest paygrade achieved, and re-enlistment were examined. Results: Compared with never smokers, daily smokers at entry into the US Navy had subsequent career outcomes consistently indicating poorer job performance (eg, early attrition prior to serving a full-term enlistment, more likely to have a less-than-honourable discharge, more demotions and desertions, lower achieved paygrade and less likely to re-enlist). Other types of smokers consistently fell between never and daily smokers on career outcome measures. Conclusions: For women entering the US Navy, being a daily smoker is a prospective predictor of poorer performance in the Navy. Future research should evaluate the effectiveness of cessation intervention with smoker-enlistees prior to their entering the Navy, to assess the impact on subsequent career outcomes. Copyright 2007, BMJ Publishing Group.

A prospective analysis of alcohol consumption and onset of perimenopause.

Phillips GS; Wise LA; Harlow BL. *Maturitas* 56(3): 263-272, 2007. (48 refs.)

Objectives: We prospectively assessed the association between alcohol consumption and onset of perimenopause in women of late reproductive age using data from the Harvard Study of Moods and Cycles. Specific types of alcoholic beverages—red wine, white wine, beer, and liquor—were evaluated. Methods: Among 502 women aged 36–45 years residing in seven Boston communities, we assessed self-reported perimenopausal symptoms over a 5-year period. The onset of perimenopause was defined using changes in menstrual characteristics. We administered a semi quantitative food frequency questionnaire at enrollment to measure regular alcohol consumption during the past year. Hazard ratios (HRs) and 95% confidence intervals were derived from Cox regression models. Results: No association was found between total alcohol consumption and time to perimenopause. Compared with women consuming < 1 alcoholic drink per month, HRs for those drinking red wine in quantities of 1–3 glasses per month, 1 glass per week, or ≥ 2 glasses per week were all below 1.0, after accounting for other sources of alcohol. Among never smokers, the inverse association with red wine was

stronger and a positive association was observed with liquor consumption although numbers were small. No associations were observed with white wine or beer. Conclusion: While there was no association between total alcohol consumption and onset of perimenopause, there was some suggestion of an inverse association between red wine and risk of perimenopause, particularly among never smokers. Copyright 2007, Elsevier Science.

Effect of a specialized prenatal clinic on medical student attitudes toward women with drinking problems.

Meng C; Rayburn BB; Ramirez-Cacho WA; Rayburn WF. *Journal of Maternal-Fetal and Neonatal Medicine* 20(3): 217-220, 2007. (10 refs.)

Objective. To determine if student attendance at a specialized prenatal clinic would yield any change in their comfort level and in their attitudes toward pregnant women with drinking problems. Methods. A total of 117 third-year students rotating consecutively on our core obstetrics - gynecology clerkship consented to enrolling in this prospective cohort study between February 2004 and June 2005. Each was assigned either to attend a half-day prenatal clinic designed specifically for women with alcohol and substance use disorders (study group) or not to attend the clinic (control group). The students answered anonymously a 15-question survey (using a 5-point Likert scale from 'strongly disagree' to 'strongly agree') at the beginning and at the midway point of the eight-week clerkship. Scores averaged for each question at the two points were compared within and between the two groups using paired-samples and independent-samples t-tests. Results. No differences in responses to the survey were found between the study and control groups at the beginning of the clerkship. Students who attended the clinic became more comfortable in inquiring about patient alcohol consumption ($p < 0.001$) and about social problems such as domestic violence ($p < 0.001$). After attending the clinic, students reported that alcoholism was associated less with a weak will ($p < 0.01$) and that group therapy has more importance ($p < 0.05$). In contrast, the control group disagreed less that alcohol use was more of a moral and legal problem than a medical problem ($p < 0.05$). Conclusions. An experience at this special prenatal clinic improved medical student awareness of complexities faced by problem drinkers, enhanced their comfort in talking to pregnant alcohol drinkers, and favored more sympathy toward alcoholism in general but not necessarily during pregnancy. Copyright 2007, Taylor and Francis.