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ASSOCIATION OF MATERNAL WORK WITH ADVERSE PERINATAL OUTCOME. *M A Arafa, T Amine, and M Abel-Fatah (Epidemiology Dept. High Institute of Public Health, Alexandria, Egypt)

Little information exists about the effect of work during pregnancy and adverse perinatal outcome in our country, Egypt, as a developing one. In order to investigate such relationship, 2419 women were interviewed shortly after delivery in the three main public and Health Insurance hospitals in Alexandria, Egypt during a period of 4 months. There were 730 (30.2%) working and 1689 (69.8%) non working, parturients. Detailed description of working status was analysed, along with risk profile which was compared between both groups. There was no significant association between different work characteristics and perinatal outcomes. There was an excess rate of SGA and perinatal death among the non-working group, while preterm delivery was significantly increased among those who worked throughout the whole pregnancy. After adjusting for confounders, the risk of preterm delivery was no more significant (OR = 1.2 & 95% CI = 0.96–1.7). On the other hand, working status had a beneficial effect on SGA and perinatal death (OR = 0.41, 0.26 & 95% CI = 0.26–0.64 and 0.14–0.48 respectively). These results cast doubt on the hazardous element of work and adverse pregnancy outcome and work per se doesn't constitute a health risk factor but may even have a positive social impact on pregnancy.

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PREVALENCE OF AND FACTORS ASSOCIATED WITH ASTHMA IN ADULT MALE LEATHER TANNERY WORKERS OF KARACHI, PAKISTAN. *K Shahzad, S Akhtar, S Mahmud (Aga Khan University, Karachi, Pakistan, 46000)

Background: No study as yet determined the prevalence of adult asthma in Pakistan. This study aimed to estimate the prevalence of adult asthma as well as to identify the risk factors of asthma in specific occupational group of leather tannery workers. Methods: A cross sectional study was conducted from August 2003 to March 2004 on leather tannery workers of Karachi, Pakistan. Data were collected from 641 workers belonging to 95 different tanneries in Korangi industrial area based on convenient sampling. Face to face interviews were performed using a structured questionnaire by the trained data collectors. Results: The prevalence of asthma was 10.8%. The prevalence of asthma was higher in illiterate workers compared to the literate ones (OR = 2.13, 95% CI: 1.17–3.88). Pathans were more likely to have asthma compared to Punjabi (OR = 2.69; 95% CI: 1.35–5.36). Smokers (OR = 2.22, 95% CI: 1.16–4.26) and those who never used gloves during different tanning tasks (OR = 3.28; 95% CI: 1.72–6.26) were more likely to have asthma than non-smokers and those who at least rarely used gloves, respectively. Those who perceived allergy to certain substances were at greater risk for asthma compared to non-allergic (OR = 2.26, 95% CI: 1.19–4.29), there was excess risk demonstrated with increasing duration of work only for those who perceived allergy. Conclusions: Asthma in leather tannery workers appears to be high and is associated with educational status, ethnicity, smoking, perceived allergy and glove use. Key words: Asthma, duration of work, leather tanning, Pakistan, smoking.

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BRAIN CANCER MORTALITY AND POTENTIAL OCCUPATIONAL EXPOSURE TO LEAD: FINDINGS FROM THE NATIONAL LONGITUDINAL MORTALITY STUDY, 1979–1989. *E van Wijngaarden, M Dosemeci (University of Rochester Medical Center, Rochester, NY 14642)

We evaluated the association between potential occupational lead exposure and the risk of brain cancer mortality in the National Longitudinal Mortality Study (NLMS), which is a prospective census based cohort study of mortality among the non-institutionalized United States population (1979–1989). The present study was limited to individuals for whom occupation and industry were available (n = 317,968). Estimates of probability and intensity of lead exposure were assigned using a job-exposure matrix (JEM). Risk estimates for the impact of lead on brain cancer mortality were computed using Standardized Mortality Ratio (SMR) and Proportional Hazards and Poisson regression techniques, adjusting for the effects of age, gender and several other covariates. Brain cancer mortality rates were greater among individuals in jobs potentially involving lead exposure as compared to those unexposed (age- and gender-adjusted Hazard Ratio (HR) = 1.5; 95 percent confidence interval (CI) = 0.9–2.3) with indications of an exposure-response trend (probability: low HR = 0.7 (CI = 0.2–2.2), medium HR = 1.4 (CI = 0.8–2.5), high HR = 2.2 (CI = 1.2–4.0); intensity: low HR = 1.2 (CI = 0.7–2.1), medium/high HR = 1.9 (CI = 1.0–3.4)). Brain cancer risk was greatest among individuals with the highest levels of probability and intensity (HR = 2.3; CI = 1.3–4.2). These findings provide further support for an association between occupational lead exposure and brain cancer mortality, but need to be interpreted cautiously due to the consideration of brain cancer as one disease entity and the absence of biological measures of lead exposure.

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RELATIONSHIP BETWEEN SHIFT WORK AND SLEEP PROBLEMS AMONG POLICE OFFICERS: THE BUFFALO POLICE HEALTH STUDY. *L Charles, C M Burchfiel, D Fekedulegn, T Hartley, J Slaven, J Violanti (Centers for Disease Control, Atlanta, GA)

Shift work is one of several stressors that may affect the quality and quantity of sleep. The authors assessed the association of shift work with prevalence of sleep problems and hours of sleep reported by 112 police officers in Buffalo, New York. In this cross-sectional study, randomly selected participants responded to self-administered questionnaires in 1999, with 100% participation rate. Participants responded 'yes' or 'no' when asked if they worked shift work; they responded to eight sleep-related questions using a six-point Likert scale and reported the number of hours of sleep. Univariate analyses, t-tests, Pearson's correlation, and analysis of variance were employed. Prevalence ratios (PR) were obtained from Poisson regression models to examine the association of shift work with sleep quality and quantity. Participants ranged in age from 26 to 61 years old (mean±S.D. = 39.7±7.5 years), and 22.3% were shift workers. Sleep problems with the highest prevalence were tiredness upon awakening (89.0%) and snoring (83.3%); sleep apnea had the lowest prevalence (11.2%). Fewer than half of all officers reported sleeping for ≥7 hours during the week (39.3%) and weekend (48.2%). In general, higher depression scores and lower physical activity scores were more likely to be seen in officers who had severe sleep problems. Larger anthropometric indices were significantly associated with more frequent snoring. Shift work was significantly associated with tiredness upon awakening before and after (PR = 1.16; 95% confidence interval = 1.02, 1.33) adjustment for years of service, depression, BMI, and physical activity. No associations were observed between shift work and other sleep problems.