

0154

**A CROSS-SECTIONAL STUDY ON LOWER BACK PAIN (LBP) AMONG CHINESE COAL MINERS**

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**Background** Coal miners differ from other professional population in their exposures to physical and psychosocial hazards in the work environment. In China, the number of coal miners far exceeded millions, but epidemiological data on lower back pain (LBP) of this occupational group are very rare.

**Objective** To explore prevalence characteristics in coal miners and their association with occupational and personal risk factors.

**Methods** A cross-sectional survey was administered to 1573 coal miners from a major coal mine group in China using a two-part questionnaire, with items adopted from questionnaires that have been used for such studies around the world. LBP prevalence was assessed using the modified Nordic Musculoskeletal Questionnaire. Multiple logistic regression models were employed for statistical analyses.

**Result** Of 1537 coal miners, 649% reported in the past 12-month prevalence of LBP as the most commonly affected body part. The risk of LBP increased with age for coal miners (OR 1.02;  $p<0.001$ ; 95% CI 1.01 to 1.03). LBP was associated with postures with extreme wrist bending (OR 1.30;  $p<0.05$ ; 95% CI 1.01 to 1.67), awkward work posture (OR 1.77;  $p<0.001$ ; 95% CI 1.36 to 2.27), prolonged standing (OR 1.14;  $p=0.01$ ; 95% CI 1.06 to 1.24) in the final multivariate models.

**Conclusion** Personal and occupational factors were associated with LBP among coal miners. The abnormal posture is one of the important risk factors for LBP, and ergonomic studies will be very important in identifying prevention strategies.