

Prevalence and social factors for birth trauma caused disability among Chinese children: A national survey

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Context Birth trauma is a main cause of neonatal death and disability. The neonatal mortality caused by birth trauma was estimated by WHO and Chinese government. In China, 2.6 per 100,000 infant were death because of birth asphyxia or birth trauma during 2006[1]. However, the prevalence of children disability caused by birth trauma were unknown in China.

Objective To evaluate the prevalence and the social risk factors for birth trauma caused disability among Chinese children.

Methods This study was a descriptive cross-sectional analysis. Data were taken from the second China National Survey on Disability (CNSD) that conducted from April 1 to May 31, 2006. The identification of birth trauma caused disability was based on consensus manuals. Logistic regression was used to estimate odds ratios (ORs) and 95% confidence intervals (CIs).

Patients A total of 626989 children aged 0-18 years old (born date between January 1, 1985 to May 31, 2006) participated in this survey. Among them, 111 children had disability caused by birth trauma.

Main Outcome Measures Incident birth trauma caused speech and/or intellectual disability determined by expert panel consensus.

Results A weighted number of 57878 birth trauma caused disability children were identified, yielding a prevalence of 1.75 per 10,000 people (95% CI: 1.57–1.93), 2.19 per 10,000 people (95% CI: 1.91–2.47) for male and 1.25 per 10,000 people (95% CI: 1.04-1.46) for female. Male (OR=1.719, 95%CI 1.130–2.616, P=0.0114), lower family income (OR=2.804, 95%CI 1.200–6.553, P=0.0172) were strongly associated with risk of birth trauma caused disability in the offspring. Compare with big family, the nuclear family with only one children had less risk with a birth trauma disability children (OR=0.625, 95%CI 0.414–0.942, P=0.0246).

Conclusions The rate of children disability caused by birth trauma (17.5 per 100,000 children) was much larger than the neonatal mortality caused by birth asphyxia or birth trauma (2.6 per 100,000 infant)[1] in China. The delivery related technologies and the public health service needs to improve in China. We need special plan to prevent low income family neonate from disability caused by any kinds of birth trauma.

Keywords Birth trauma, Disability, prevalence, risk factor, China

Reference

[1] National Disease Surveillance Points System Mortality Data 2006, China Center for Disease Control and Prevention, Military Medical Science Press, 2006, P282.