Impact of bronchopulmonary dysplasia in adolescents born extremely preterm: a multicenter cross-sectional study

Ryo Ogawa¹, Tomohiko Nakamura¹, Katsuya Hirata², Noriyasu Ohida³, Kei Tamai⁴, Misao Kageyama⁴, Masamichi Kubota⁵, Kanako Yoshizaki⁵, Tomoko Makiya⁶, Chiaki Oba⁷, Satoko Seki⁷, and Fumihiko Namba⁸

¹Nagano Kenritsu Kodomo Byoin
²Osaka Boshi Iryo Center
³Tokyo Metropolitan Bokutoh Hospital
⁴Kokuritsu Byoin Kiko Okayama Iryo Center
⁵Kurashiki Central Hospital
⁶Okinawa Chuo Byoin
⁷Okinawa Prefectural Nanbu Medical Center & Children’s Medical Center
⁸Saitama Ika Daigaku Sogo Iryo Center

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Abstract

Objective: This study aimed to evaluate the impact of bronchopulmonary dysplasia (BPD) on adolescents born extremely preterm (<28 weeks of gestation). Methods: This multicenter cross-sectional study included adolescents who were born extremely preterm between 2003 and 2007. Questionnaires regarding the history of respiratory symptoms, asthma, quality of life (QOL), and physical growth were sent to 423 participants by mail, and responses were received from 243 participants (response rate: 57.4%). The average age of the respondents was 16.5 years. The participants were divided into the BPD (n = 140) and non-BPD (n = 103) groups. Results: One of three patients in both groups had been rehospitalized owing to respiratory symptoms; however, the difference was not significant (odds ratio [OR], 0.96; 95% confidence interval [CI], 0.56–1.65). Respiratory syncytial virus infection was the most common reason for rehospitalization. The prevalence of adolescents with current wheeze were 4.3% and 2.9% in the BPD and non-BPD groups, respectively; however, the difference was not significant (OR, 1.49; 95% CI, 0.36–6.11). QOL scores were similar in both groups (71.9 vs. 71.0, p = 0.61). The z-scores for body weight and height were significantly different (p = 0.01). Conclusion: Adolescents born extremely prematurely with BPD were smaller physically than those without BPD. No significant differences in rehospitalization, asthma, and QOL scores were noted between the two groups. Further studies are needed to determine the impact of BPD on adults.

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