Clinical effect of noninvasive positive pressure ventilation on chronic obstructive pulmonary disease complicated with type II respiratory failure

LI Chun-hua
(Emergency Department, Longhua Subsidiary Hospital of Shenzhen People’s Hospital, Shenzhen 518129, China)

[Foundation Project]: This Work is Financially Supported by Special Foundation for Clinical Studies from Committee of Medical Journal of Chinese Universities (112210190)

[Author]: LI Chun-hua (1970-), Female, Shandong, Attending Physician, M. B., Tel; 13631618246, Email: 1543200520@qq.com.

Received: 2012-02-01 Revised: 2012-03-20 JHMC, 2012; 18(6): 812-814

View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate clinical efficacy of non-invasive positive pressure ventilation (NIPPV) therapy on patients with chronic obstructive pulmonary disease (COPD) complicated with type II respiratory failure. Methods: A total of 75 patients with COPD complicated with type II respiratory failure were randomly divided into observation group (40 cases) and control group (35 cases). Patients in control group only received the comprehensive treatment, while others received added NIPPV therapy based on conventional treatment. The curative effect was observed and compared between two groups. Results: After treatment for 48 h, respiratory rate and heart rate in observation group were significantly lower than those in the control group ($P<0.05$); PaO$_2$ and PaO$_2$/FiO$_2$ in observation group were significantly higher than those in the control group ($P<0.05$); length of hospital stay, tracheal intubation rate and mortality in observation group were significantly lower than those in control group ($P<0.05$). Conclusion: NIPPV can obviously improve ventilation function, shorten length of stay and decrease mortality.

[KEY WORDS] Chronic obstructive pulmonary disease; Respiratory failure; Noninvasive positive pressure ventilation; Clinical observation