Analysis on the Health Effect of 23-valent Pneumococcal Polysaccharide Vaccination in the Elderly Over 60 Years Old in Chengdu

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Abstract

Objective: To evaluate the protective effect of pneumonia vaccine inoculation on the elderly patients with respiratory diseases, and to explore the application value of propensity score matching (PSM) in vaccines. *Methods*: Taking Chengdu as the research site, elderly people aged 60 and above who were indirectly seeded in pneumonia vaccine from January to December in 2017 were selected and included in the pneumonia vaccine vaccination group. The observation objects were selected as the control group by using the propensity score matching method. After matching, the medical treatment of respiratory diseases after vaccination was compared between the two groups to evaluate the vaccine protection effect. *Results*: There were 27,573 cases successfully matched between the vaccinated group and the unvaccinated group in pneumonia vaccine. There were significant differences in general demographic characteristics, lifestyle, health awareness and basic health status between the two groups before matching, and the covariates of the two groups reached equilibrium after matching. The pneumonia vaccine has a protective rate of 53% (95% CI: 11.00% ~ 77.00%) for respiratory tract infection and 87% (95% CI: 1.00% ~ 99.80%) for pneumonia. *Conclusion*: Vaccination of pneumonia vaccine has a protective effect on the incidence of pneumonia and other respiratory infections in the elderly in Chengdu, and efforts should be continued to promote the progress of pneumonia vaccine vaccination project for the elderly.

Keywords

The Elderly, 23-Valent Pneumococcal Polysaccharide Vaccine, Effect, Evaluate