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Lack of effectiveness of the 23-valent polysaccharide pneumococcal vaccine in reducing all-cause pneumonias among healthy young military recruits: A randomized, double-blind, placebo-controlled trial.

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Author information

Abstract

BACKGROUND: Streptococcus pneumoniae infections have periodically caused significant morbidity and outbreaks among military personnel, especially trainees. This study evaluated the effectiveness of the 23-valent polysaccharide pneumococcal vaccine (PPV23) in reducing pneumonia in healthy military trainees.

METHODS: From 2000-2003, 152723 military trainees from 5 US training camps were enrolled in a double-blind, placebo-controlled trial of PPV23. Participants were closely monitored during basic training for radiographically confirmed pneumonia etiology and loss-of-training days. Participants were also followed using electronic medical encounter data until 1 June 2007 for three additional outcomes: any-cause pneumonia, any acute respiratory disease, and meningitis.

RESULTS: Comparison of demographic data by study arm suggested the randomization procedures were sound. During basic training, 371 study participants developed radiographically confirmed pneumonia. None had evidence of S. pneumoniae infection, but other etiologies included adenovirus (38%), Chlamydomphila pneumoniae (9%), and Mycoplasma pneumoniae (8%). During the follow-up period, many study participants, in both the vaccine and placebo groups, had clinical encounters for the medical outcomes of interest. However, Cox's proportional hazard modeling revealed no evidence of a protective vaccine effect during recruit training (radiographically confirmed pneumonia) or up to 6.7 years after enrollment (any-cause pneumonia, any acute respiratory disease, or meningitis).

CONCLUSIONS: Published by Elsevier Ltd.

KEYWORD

軍隊の若い人ではそもそも、肺炎球菌による肺炎の発生がないので、そのワクチンの効果はないに等しい。それに比べて、若い人では、アデノ、クラミジア、マイコプラズマの肺炎があり。

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