论著

## 不同品系小鼠对卡氏肺孢子虫的易感性及其免疫反应的研究

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收稿日期 修回日期 网络版发布日期 接受日期 摘要

目的 探讨不同品系小鼠对卡氏肺孢子虫 (P.c)的易感性及其免疫反应。 方法 以接触传播方式使 BAL B/ c和 C5 7BL / 6小鼠 (各 15只 )感染 P.c。观察小鼠与传染源接触 4、5、6 wk后肺内虫数、支气管肺泡灌洗液中CD4 + T细胞和 CD8+ T细胞及血清 Ig G水平的变化。 结果 与传染源接触 4 wk,小鼠肺内均可检出 P.c,之后,BAL B/ c小鼠虫数继续增高,5 wk末达高峰。4 wk时 C5 7BL / 6小鼠虫数无明显变化,5 wk时显著少于 BAL B/ c小鼠。两组小鼠支气管肺泡灌洗液内 CD4 + CD6 2 low T细胞和 CD8+ CD6 2 low T细胞数明显增多,血清 Ig G抗体水平显著上升。6 wk小鼠肺内 P.c 均转阴。 结论 BAL B/ c比 C5 7BL / 6小鼠更易感染 P.c。 BAL B/ c和 C5 7BL / 6小鼠感染 P.c 后5 wk可产生有效的细胞和体液免疫反应并清除肺内感染的 P.c

## Susceptibility and Immune Responses to Pneumocystis carinii Infection in Different Strains of Mice by Contagious Transmission

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**Abstract** 

Objective To explore the susceptibility of different strains of mice to P.carinii infection and the host immune response to the organism. Methods. C57BL/6 and BALB/c strains of mice (15 each) were exposed to SCID mice infected with P.carinii by co-housing. Observations were made on the number of parasites in the lungs, level of CD4+ T cell and CD8+ T cell in BALF, and serum IgG at 4, 5 and 6 wk after contagion.. Results . The number of P.carinii grew in the lungs of BALB/c mice was found much greater than those in C57BL/6 mice. A few number of P.carinii cysts were detected in the lungs of both strains of mice by 4 wk after co-housing, the number of cysts increased at 5 wk in the lungs of BALB/c mice but not in that of C57BL/6 mice. P.carinii-specific IgG in the sera and high level of CD62.{low.} CD4-and CD8-positve T cells in the lungs were found at 5 wk. The parasites were cleared from the lungs at 6 wk in all infected mice, shortly after acquired immune response was initiated. . Conclusion . BALB/c mice are more susceptible to P.carinii than the C57BL/6 mice by natural transmission, and all the immunocompetent mice can clear the infection of P.carinii by cellular and humoral immune responses.

Key words BALB/c mice C57BL/6 mice Pneumocystis carinii susceptibility

DOI:

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