

志贺氏菌链霉素依赖菌株回复突变的研究II. 回复突变株的致病力

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摘要 志贺氏菌链霉素依赖菌株 (Streptomycin-dependent Shigella Strains以下简称S4) 能普遍地发生对链霉素不依赖的回复突变现象[1], 并伴随有其它生物学性状的变化。目前S4不仅作为痢疾减毒口服活菌苗株在现场人群中应用, 而且布氏菌、伤寒、霍乱等其它传染病的致病菌也以此作为减毒途径而进行研究[2-4]因此, 回复突变株(Srev)是否会发生毒力改变而返祖为有毒菌株, 这在活菌苗使用中是一个共同关心的问题。本文着重研究回复突变株的毒力, 进一步探讨Sd菌苗株的安全性和试图建立S4菌苗株安全性的实验室鉴定方法。

关键词

分类号

STUDY OF THE REVERSE MUTATION OF THE STREPTOMYCIN-DEPENDENT SHIGELLA STRAINS II. THE PATHOGENECITY OF THE REVERTANTS RAINS

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Abstract

In this paper, the virulence of 31 strains of the revertant of streptomycindependent Shigella: serotypes were determined by mice LDao test, minimal lethal dose test on chicken embryos, guinea pig eye test and HeLa cel infection method. It is observed, that the virulence of most of the revertants are higher than the corresponding

Sa strains, but the revertants remain to be attenuated strains invariably. A few strains exhibit more evidence of residual virulence, and are capable of causing keratoconjuetivitis

in guinea pigs after culture passage -on blood slants. Virulence back -origin has roccurred in about 1/3 of the revertants which have regained the ability of invading epithelial cells. It should be noted that in general, revertants from the some Sd strain are identical in virulence, but some of the Sb strains may be differentiated into a virulents and virulence back origin strains. The application of such -strains for the production of oral vaccines should be avoided, especially if their Srev strains cause keratoconjunctivitis in guinea pigs. Virulence back origin test can be 4used as a method of assessing the safety of Sd strains.

Key words

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