市售口蹄疫苗免疫效力之評估

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摘要

口蹄疫為偶蹄類動物的高度傳染病，造成經濟嚴重損失。我國自1997年首度爆發口蹄疫疫情以來，皆使用疫苗進行疾病的控制。現今我國主要依據英國 Pirbright 實驗室進行之口蹄疫疫苗株配對試驗來選擇口蹄疫疫苗株。我國常用的疫苗株為 O/Taiwan、O/Manisa 及 O1/Campos 等三種，雖都可通過配對試驗，但實際於豬隻使用情形仍須進一步試驗來驗證。基於上述原因，我們將前述疫苗應用於無特定病原豬及商用豬隻，分析其免疫效力。本實驗將動物分成三組(三種市售 FMD 疫苗)，每組含 8 週齡無特定病原豬及 12 週齡商用豬隻各五頭，依據疫苗使用說明以肌肉注射方式接種三種疫苗，透過血清中和抗體測定及攻毒後保護率來評估市售疫苗之免疫效力。

The Efficacy of Commercial FMD Vaccines in pigs in Taiwan

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Abstract

Foot and mouth disease (FMD) is highly contagious disease of cloven-hoofed animal and cause severe economic loss in livestock industry. The disease has been controlled by vaccination since the first outbreak of FMD occured in Taiwan in1997. The selection of FMD vaccine strain is according to the vaccine matching test by the world reference laboratory for FMD, Pirbright Laboratory. Although the commonly used vaccine strains, O/Taiwan, O/Manisa and O1/Campos, have passed the matching tests, the applications in pigs are still needed to be evaluated. We applied three FMD vaccines of different strains in SPF pigs and commercial pigs to realuating the vaccine efficacy. Five heads of 8 weeks-old SPF pig and 12 weeks-old commercial pigs, respectively, were vaccinated with one FMD vaccine. Three FMD vaccines were evaluated. The neutralizing antibody titers and protection rates were compared among those three vaccines.