

Abstract

From 1996, new serotype O3:K6 strains have been the most popular occurring food pathogen in Taiwan and many other regions and known as the first pandemic strains of *Vibrio parahaemolyticus*. However, the reason why it become pandemic is unknown. The main goal of this project is to evaluate the presence of any specific virulence factors by analyzing the protein composition, lipopolysaccharide and capsule profiles of these new O3:K6 strains and compared with the old O3:K6 and other strains. These factors are known as virulence factors in some pathogens. Protein profiles are analyzed by polyacrylamide gel electrophoresis. The LPS and capsule profiles are analyzed by gel electrophoresis as well as immunoblotting with antiserum raised against the purified LPS/capsule fractions. Animal model using suckling mice is also used. Specific factors identified in this study can be used as the target in detection. Results of this study will elucidate the virulence factors of these new O3:K6 and help to control the spreading of these pandemic strains.

Key Word : *Vibrio parahaemolyticus* 、 O3:K6 、 Capsule 、 Lipopolysaccharide 、 Protein 、 Virulence factor