

Virulence associated gene profiling and serotypes of
Streptococcus suis isolated from pigs and human in Thailand

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Abstract This research aims to compare the virulence associated gene profiling of *Streptococcus suis* isolated among healthy pig 28 isolates, clinical pig 10 isolates and patient 20 isolates. *S. suis* isolates were serotyped and detected virulence associated gene profiling (*epf*, *mrp* and *sly*) by the multiplex PCR method. The results showed that only serotype 2 were detected in patients and can be detected in healthy pigs (42.86 %) which was much more than clinical pigs (10 %) ($p=0.06$). This indicates that pork consumers from healthy pigs without clinical signs have increased the risk of *S. suis* infection from healthy pigs. The results of virulence associated gene profiling of *S. suis* showed that *epf*⁺*mrp*⁺*sly*⁺ genotype was detected from the healthy pigs (57.14 %), clinical pigs (80 %) and patients (100 %). This genotype was obtained from clinical pigs much more than healthy pigs ($p=0.18$). However, the study shows that probability of *S. suis* serotype 2 with *epf*⁺ was detected in healthy pigs were 0.245 and clinical pigs were 0.08, which may indicate that people have the probability to infect *S. suis* serotype 2 with *epf*⁺ from healthy pigs much more than clinical pigs.

Keywords : *Streptococcus suis*, pigs, patients, Virulence associated gene profiling, multiplex PCR
