

Mechanisms of oral bacterial virulence factors in pancreatic cancer

ABSTRACT

Pancreatic cancer is a highly lethal disease, and most patients remain asymptomatic until the disease enters advanced stages. There is lack of knowledge in the pathogenesis, effective prevention and early diagnosis of pancreatic cancer. Recently, bacteria were found in pancreatic tissue that has been considered sterile before. The distribution of flora in pancreatic cancer tissue was reported to be different from normal pancreatic tissue. These abnormally distributed bacteria may be the risk factors for inducing pancreatic cancer. Therefore, studies on combined effect of multi-bacterial and multi-virulence factors may add to the knowledge of pancreatic cancer pathogenesis and aid in designing new preventive and therapeutic strategies. In this review, we outlined three oral bacteria associated with pancreatic cancer and their virulence factors linked with cancer.

Keyword: Oral bacteria; Pancreatic cancer; Virulence factors; CDT; FadA; NDK; Gingipains