Abstract

Staphylococcus aureus is the most prevalent mastitis pathogen in Argentina and worldwide. Lack of effectiveness of traditional control measures based on milking hygiene and antibiotic therapy against this organism has led to the development of alternatives directed to prevent the disease. Among them, the manipulation of host immune mechanisms through vaccination has been explored. The identification of virulence factors able to stimulate host immune defenses is key to developing a rational vaccine. S. aureus has multiple virulence factors that interact with the host at different stages of an intramammary infection. The use of some of these factors as immunogens has been shown to elicit protective responses in the host. The structure, function, and use as immunogens of S. aureus virulence factors considered to be relevant at different stages of intramammary infections caused by this organism are reviewed in this article.

Keywords

Staphylococcus aureus, virulence factor, Immunogen.