

Analysis of multiresistance to antibiotics of Methicillin-Resistant *Staphylococcus aureus* strains isolated from the pharynx and nose of Mexican population

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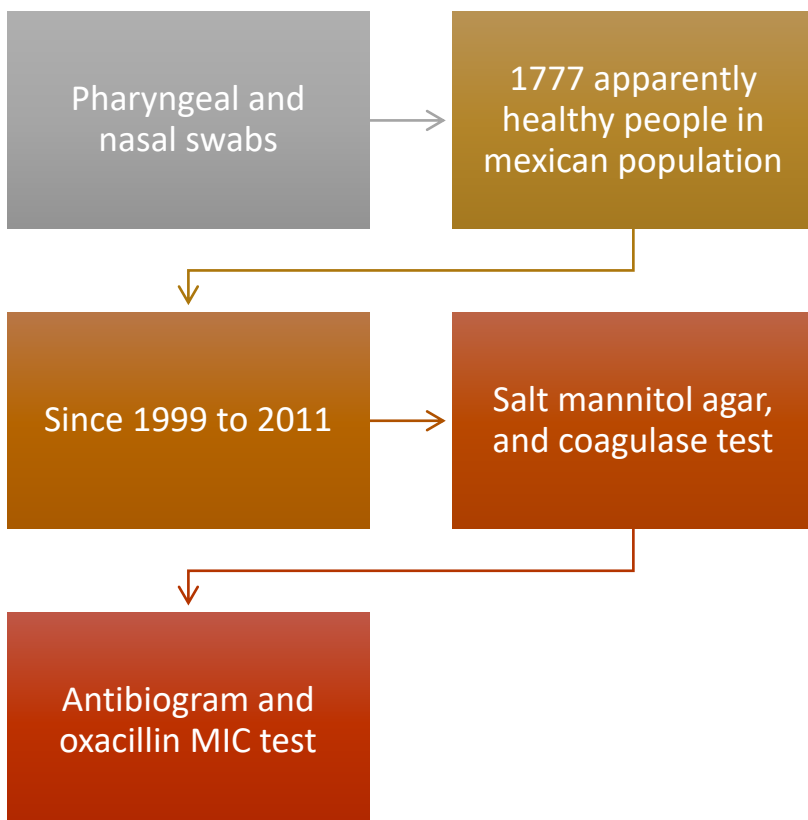
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Introduction

Staphylococcus aureus is a spherically clustered Gram-positive bacterium pathogenic to humans and animals¹. Normally, *S. aureus* can be isolated from healthy individuals from the nose, pharynx and skin, although it is rare for it to cause infections in healthy skin, however, upon entering tissues or the bloodstream², it can cause serious diseases, in this regard, *S. aureus* is one of the main reasons for the spread of hospital and community infections. Methicillin-resistant *S. aureus* (MRSA) strains were first observed among clinical isolates from hospitalized patients in the 1960s, but since the 1990s they have spread rapidly in the community^{3,4,5}.

The objective of this work is to study the resistance to antibiotics of MRSA strains isolated from the pharynx and nose of Mexican population.

Methods



Results

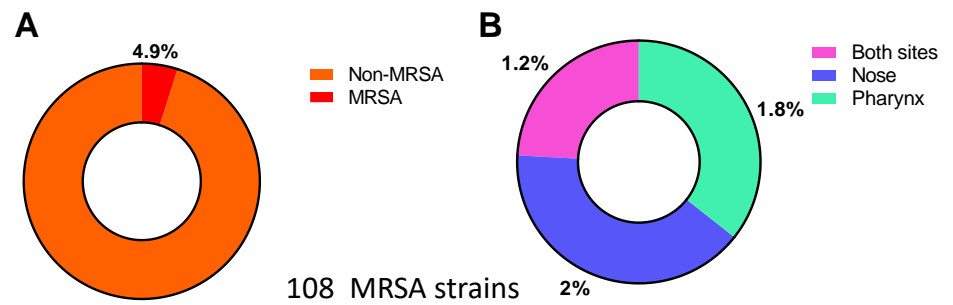


Figure 1. MRSA carriers. A: Total of MRSA carriers found in the 1777 person sampled. B: MRSA strains isolated from anatomical site.

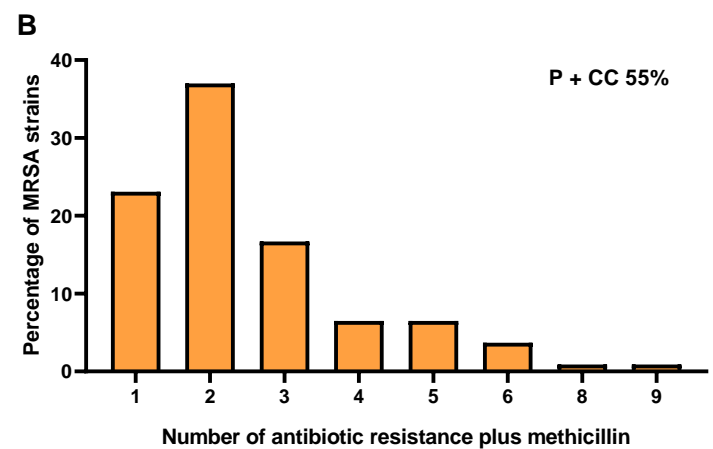
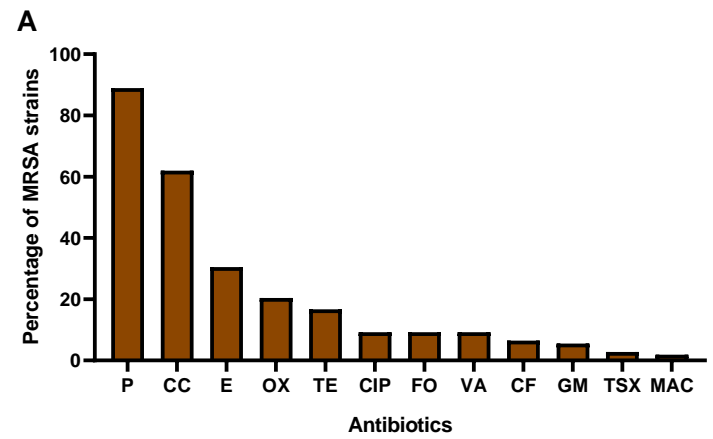


Figure 2. Multiresistant MRSA strains. A: Percentage of MRSA strains resistant to other antibiotics. B: Percentage of multiresistant MRSA strains. ciprofloxacin (CIP), fosfomicin (FO), trimethoprim-sulfamethoxazole (TSX), penicillin (P), vancomycin (VA), tetracycline (TE), erythromycin (E), oxacillin (OX), macrolides (MAC), clindamycin (CC), gentamicin (GM), and cephalothin (CF).

Conclusions.

A low percentage of MRSA carriers was isolated in the sampled population, although there were more nasal (2%) than pharyngeal (1.2%) carriers. The main antibiotics to which they present resistance are penicillin, clindamycin, and erythromycin. 77% of all the strains analyzed present resistance to at least two antibiotics.