COMMUNITY-ACQUIRED *STAPHYLOCOCCUS AUREUS* MUSCULOSKELETAL INFECTIONS IN CHILDREN: ROLE OF PANTON-VALENTINE LEUKOCIDIN AND METHICILLIN RESISTANCE

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Background and aims: Staphylococcus *aureus* (SA) is responsible for a multiplicity of infections in humans. In the last years, community-acquired methicillin resistant SA (CA-MRSA) has emerged frequently associated with the presence of the Panton-Valentine leukocidin (PVL). There is limited data concerning methicillin susceptible (MSSA) or resistant SA musculoskeletal infections in Portugal.

Methods: Retrospective study of children admitted to Hospital Dona Estefânia, from January 2005 through June 2008, with community-acquired SA musculoskeletal infections. Data on demographics, clinical parameters and antibiotic susceptibility were collected. Detection of *mecA*, LPV, pulsed-field gel electrophoresis profiling (PFGE), and *spa typing* (only for MRSA) were done.

Results: 21 SA infections were identified: 8 septic arthritis, 6 osteomyelitis and 7 combining both conditions. One isolate (5%) was MRSA (*mecA* positive) and 2 (10%) were erythromycin resistant (1 $iMLS_B$ phenotype). Most patients were treated with a

combination of flucloxacillin and gentamicin and surgical drainage. Cultures remained positive more than 48 hours after adequate therapy in 6 patients and 4 had sequelae.

MRSA (*spatype* t008) was associated with pyomyositis, but the duration of hospitalization and complications were similar to MSSA. Two isolates (10%) harbored PVL genes, both from the same PFGE clone. Patients infected with PVL positive strains had less frequently bacteremia and were treated with fewer antibiotics.

Conclusions: Methicillin resistance was similar to other European countries. Although PVL-carrying clones have been associated with severe infections our data does not support such association.