MCAO+SHAM, SHAM+CLP, and MCAO+CLP groups. Eight days later, brain structures (hippocampus, frontal cortex, posterior cortex, and striatum) were collected to assess myeloperoxidase (MPO) activity, nitrite/nitrate (N/N) levels, and catalase (CAT) activity.

Results: In males, increased MPO activity was observed in all analyzed brain regions in the MCAO+CLP group, indicating intensified inflammatory response. Increased N/N levels and reduced CAT activity were also detected, especially in the frontal cortex and hippocampus, suggesting a persistent prooxidant environment. In females, combined injury effects were more localized. MPO activity was reduced in the frontal cortex and hippocampus in the MCAO+CLP group, while N/N levels showed a regional pattern, with increases in some structures and decreases in others. CAT activity was reduced only in the hippocampus.

Conclusion: The findings reinforce that biological sex influences cerebral vulnerability to sepsis occurring after ischemic stroke, with males being more susceptible to long-term exacerbation of oxidative changes. These data highlight the importance of considering sexual dimorphism in understanding the pathophysiology of complex neurological injuries and in designing personalized therapeutic approaches.

Keywords: Ischemic stroke, Neuroinflammation, Sepsis, Oxidative stress, Sexual dimorphism.

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GENETIC SEQUENCING AND EVALUATION OF DELAFLOXACIN SUSCEPTIBILITY IN COMMUNITY-ACQUIRED MRSA CAUSING SKIN, SOFT TISSUE, AND MUSCULOSKELETAL INFECTIONS

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Introduction/Objective: Indiscriminate use of quinolones, especially after the COVID-19 pandemic, has contributed to increased bacterial resistance, including methicillin-resistant *Staphylococcus aureus* (MRSA). Fluoroquinolones are widely used in clinical practice for treatment of skin, soft tissue, and musculoskeletal infections (SST-MSI). Delafloxacin, a new fluoroquinolone, was approved in Brazil in 2022 for the treatment of SST-MSI. This study aimed to evaluate the delafloxacin susceptibility profile of MRSA isolates causing community-acquired SST-MSI.

Methods: Thirty-five MRSA isolates obtained from biopsies of skin, soft tissue, bone, or synovial fluid were evaluated. Minimum inhibitory concentration (MIC) for delafloxacin was determined by E-test® according to BRCAST breakpoints. Isolates underwent whole-genome sequencing using the Illumina® platform.

Results: Of the 35 MRSA isolates, 71.4% (n=25) were susceptible and 28.6% (n=10) resistant to delafloxacin. Among resistant isolates, 70% (n=7) had MIC >0.5 μg/mL, with a maximum value of 2 μg/mL. In 90% of resistant isolates, mutations were found in quinolone resistance-determining regions, most commonly S84L in gyrA and S80Y in parC/grlA. One isolate with MIC 0.38 μg/mL had no known mutations or efflux pump genes. 37.1% (n=13) of isolates were resistant to ciprofloxacin.

Conclusion: MRSA isolates causing community-acquired SST-MSI showed a high rate of susceptibility to delafloxacin. However, mutations associated with quinolone resistance were identified in part of the isolates, underscoring the need for further studies to elucidate delafloxacin resistance mechanisms and guide its rational use in SST-MSI.

Keywords: Delafloxacin, SSTI, MRSA, CA-MRSA, Susceptibility.

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STAPHYLOCOCCAL SCALDED SKIN SYNDROME IN AN INFANT: CASE REPORT

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Staphylococcal scalded skin syndrome (SSSS) is an acute epidermolytic dermatosis mediated by toxins produced by group II *Staphylococcus aureus*. It mainly affects children under 5 years old and is characterized by diffuse erythema, tenderness to palpation, and subsequent superficial epidermal peeling, giving the typical “scalded skin” appearance. Mucous membranes are spared, distinguishing it from other bullous diseases. Diagnosis is clinical. Complications such as dehydration, shock, hypothermia, sepsis, and death may occur. Extensive skin denudation can facilitate secondary infection and requires rigorous supportive care. Prognosis in children is usually favorable, with possible spontaneous regression in 2 −3 weeks, and treatment is based on antibiotic therapy and supportive measures in cases of electrolyte disturbances and impaired thermoregulation. A 5-month-old boy from Sorocaba presented with perioral scaly lesion and redness for 1 week, worsening over the last 3 days. The condition started with red patches with dark borders, unresponsive to antihistamines. After 1 day, he developed auricular edema and worsening erythema, and was prescribed dexamethasone. The lesions progressed to the thoracic and dorsal regions, associated with fever; he received two injections of adrenaline, paracetamol, prednisone, amoxicillin, and hydroxyzine. With