

Characteristics of Group A Streptococcal Invasive Disease in children

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Background and aims: The aim of this study was to review all cases of Group A Streptococcal (GAS) Invasive Disease (ID) admitted to our tertiary hospital.

Methods: Retrospective analyses of all cases of GAS ID (positive culture isolated from usually sterile sites), from January 1996 to December 2008 (13 years).

Results: There were 22 cases, with a maximum of 4 cases/year. In the second half of this period occurred 16 cases (73%). Fifteen were boys and the median age was 3,5 years. The most frequent clinical manifestations were fever (71%), rash (48%) and arthralgia/limbs' pain (43%). The diagnoses were bacteriemia (5), celulitis (3), osteoarticular infection (4), pyomyositis, surgical wound infection, streptococcal toxic shock syndrome (STSS), mastoiditis (2 each), necrotizing fasciitis and pneumonia (1 each). Four cases occurred during the course of varicella. Other risk factors were present in 5 cases. Median neutrophyl count was 9 427/ μ L (6 600-34 640) and median C reactive protein was 16.7mg/dL (0.3-42.5). Bacteria were isolated mainly from blood (71%). The outcome was good for most cases but there were 2 deaths due to STSS. M typing and the presence of virulence factors genes were not assessed.

Conclusion: Although the small number of cases limits the conclusions, there was an increase of invasive disease in the second half of the study. Microbiological investigation is essential to understand which M types or virulence factors genes are involved. Several cases occurred in the course of varicella or other risk factors and fatal outcome was associated with STSS.