EPIDEMIOLOGY OF BACTERIAL MENINGITIS IN PEDIATRIC POPULATION AFTER THE INTRODUCTION OF PNEUMOCOCCAL CONJUGATED VACCINE IN COSTA RICA

Cary Barboza, MD, Helena Brenes, MD, María L. Avila-Agüero, MD, Lydiana Ávila, MD, Kattia Camacho, MD, MSc
HOSPITAL NACIONAL DE NIÑOS, San José, Costa Rica

INTRODUCTION

• Worldwide, bacterial meningitis (BM) is an important cause of morbi-mortality in the pediatric population.
• Pneumococcal meningitis was the leading cause of BM before 2009.
• In Costa Rica, PCV7 was introduced in the National Immunization Schedule (NIS) in 2009 (3+) and then changed to PCV13 (2+) in 2012.

METHODS

• Retrospective descriptive study
• From January 2009 to December 2015
• 76 pts were enrolled
• Our objective was to describe the epidemiology, bacteriology, clinical findings, and complications in patients (pts) with BM and compare these findings with the epidemiology of the pre-PCV era.

RESULTS

• 49 pts (64.5%) were male
• Median age at admission: 18m (range: 0 – 64.7)
• 63 pts (82.8%) under 24m of age, but 20 pts (31.7%) were under 2m of age.
• Only 10 pts (13.2%) had at least 1 PCV dose.
• N. meningitidis was not isolated during the study period.
• All of the CSF pneumococcal isolates were penicillin-susceptible.
• Sequelae such as hypoacusia and neurological disabilities were documented in 24 pts (31.6%).

CONCLUSIONS

• Pneumococcal meningitis is still the leading cause of BM in our pediatric population, but a dramatic reduction in pneumococcal meningitis was observed after the introduction of PCV’s in our NIS.
• There were a 54.7% reduction of all causes of BM and a 46.7% reduction in pneumococcal meningitis.
• Letality due to pneumococcal meningitis was also reduced from a 20% to a 14.3%.

REFERENCES