EMERGENCE OF NEONATAL NOSOCOMIAL INFECTIONS WITH ACINETOBACTER BAUMANNII

BENNAOUI F^{1,2}, EL IDRISSE SLITINE N^{1,2}, SORAA N³, MAOULAININE FMR^{1,2}

- 1. Neonatal resuscitation department CHU Mohammed VI Marrakech Morocco
- 2. Research team health, childhood and development Faculty of Medicine University Cadi Ayyad Marrakesh
- 3. Microbiology Department CHU Mohammed VI Marrakech Morocco.

INTRODUCTION

Acinetobacter baumannii is a Gram-negative coccobacillus, which may be responsible for severe nosocomial infections, particularly in neonatal resuscitation.

Objectives: To characterize and determine the clinical and progressive profile of Acinetobacter baumannii infections in a neonatal resuscitation unit.

PATIENTS AND METHODS

- Retrospective study.
- January 2016 to December 2017.
- Seven neonates with nosocomial infection with Acinetobacter Baumanii.
- Neonatal resuscitation service, MOHAMMED VI University Hospital in Marrakech.

RESULTS

- Three girls and four boys; sex ratio (0.75)
- Age of admission (2 to 16 days)
- Reason for admission: (Fig. 1)
 - ✓ Neonatal Respiratory Distress (NNRD) in 5 cases
 - ✓ Convulsions with fever in 2 cases
- Gestational age:
 - ✓ Five newborns at term
 - ✓ Two premature newborns
- Birth weight: ranged between 1100 and 3650 grams
- Four newborns had congenital malformations: (Fig. 2)
- Average diagnosis time of Acinetobacter Baumanii infection: 7.33 days
- Site of isolation of Acinetobacter Baumanii: (Fig. 3)
 - ✓ Blood culture in 5 cases, of which 2 cases had another germ concomitant to AB (enterobacter cloacae and enterococcus faecium)
 - ✓ Cerebrospinal fluid (CSF) in 2 cases
- Two cases had meningitis on broken myelomeningocele complicated with ventriculitis
- Isolated strains were multi-resistant and sensitive only to colistin and amikacin
- All cases were treated with these 2 antibiotics
- The mortality was 57.14%
- The average duration of hospitalization was 14 days (8 to 24 days).

Figure1: The reason for admission

Figure 2: Congenital malformations

Figure3: Isolation site of Acinetobacter Baumanii

DISCUSSION

- Multidrug-resistant infections are a major public health problem around the world. They are particularly serious in neonatology unit because of the fragility of the terrain.
- Acinetobacter baumannii (AB) appears to be one of the most problematic pathogens in health care facilities. Its ability to survive for a long time in hospitals associated with the emergence of resistance potentiates its nosocomial propagation capacity.
- The frequency of AB infections has increased in recent years.
- Nosocomial pneumonia is the most common infection. However, recently, bacteraemia, skin and soft tissue infections, urinary tract infections or the central nervous system have been identified as very problematic for some facilities.
- The pressure of selection of antibiotics, associated with invasive procedures of resuscitation are the main factors of emergence of these bacteria as nosocomial infection agent in the weakened patients.
- Carbapenems have long been considered the treatment of choice for AB infections. Today the clinical utility of this class is threatened by the emergence of resistance.
- Currently, associations of molecules and / or the use of old antibiotics such as colistin are often the only possibilities.
- Multidrug-resistant epidemics are difficult to control and prevention is the best way to anticipate the spread and spread of these epidemics

CONCLUSION

The local epidemiological change with the emergence of multidrug-resistant germs risks a therapeutic impasse and imposes the vigilance of the use of probabilistic antibiotics.