SUCCESSFUL TREATMENT OF POST-SURGICAL MENINGITIS CAUSED BY BACILLUS CEREUS: A CASE REPORT

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J01- ANTIBACTERIALS FOR SYSTEMIC USE

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BACKGROUND AND IMPORTANCE

Bacillus cereus is a spore-forming, gram-positive bacterium that is ubiquitous in the environment. It is frequently dismissed as contaminants, however, in the proper setting these organisms have the potential to be virulent. Clinical infections caused by *B. cereus* fall into six broad groups: local infections of wounds, burns, bacteremia, CNS infections, respiratory infections, endocarditis and food poisoning. Despite aggressive treatment with broad-spectrum antibiotics and using them appropriately, the mortality is high.

AIM AND OBJETIVES

To describe a case of *Bacillus cereus* central nervous system infection associated with postsurgical meningitis and a patient successfully treated with antibiotics.

MATERIAL AND METHODS

Descriptive and retrospective clinical case. Data were obtained by review of electronic medical records

RESULTS

Decompressive laminectomy due to to lumbar spinal stenosis

She was discharged **without complications**

ONE WEEK LATER… !

- 72-year-old
- Past medical history
  - Hypertension
  - Dyslipidemia

Emergency room

- Altered consciousness, dysarthria, hemiplegia and fever
- Blood pressure of 109/82 mmHg, heart rate 125 beats/min, SpO2 92%, and Glasgow Coma Scale score of 7/15
- CRP level 95 mg/l
- PCR testing for SARS-CoV-2 negative
- Blood culture negative

- Lumbar puncture

Bacillus cereus was isolated

Susceptibility to:
Macrolides, clindamycin, and quinolones vancomycin, carbapenems

Resistant to:
β-lactam antibiotics (including penicillin, ampicillin and cephalosporin) and trimethoprim/ sulfamethoxazole

1

Triple antibiotherapy with **meropenem, vancomycin and linezolid** was initiated

- Clinical stability
- Absence of fever
- Negative microbiological cultures

2

Vancomycin and meropenem were continued.

- Adequate control of the source of infection
- Good evolution of the surgical wound

3

Antibiotic therapy was switched to the **oral route** with **linezolid**

»» Discharged **without evidence of sequelae of meningeal infection**, with **normal neurological examination** and **CRP levels** within **normal range**

CONCLUSIONS AND RELEVANCE

This case highlights the clinical challenge to diagnose *B. cereus* and the importance of the delay between the detection of *B. cereus* and the establishment of an effective, targeted antibiotic therapy, specially in immunocompromised patients.

QR Code