

# Pseudomonas aeruginosa ventriculitis

Use of Intrathecal colistin has increased in recent years and has become an alternative for the management of infections of the central nervous system caused by multidrug resistant (MDR) bacteria. Evidence of therapeutic success and safety profile is increasing, particularly in MDR *Acinetobacter baumanii* infections in adults. Conversely, evidence in children is limited. We present a case of an 11-year-old female with postsurgical meningitis caused by an extensively resistant *Pseudomonas aeruginosa* strain and treated with venous and intrathecal colistin. The evidence of its use in children with nosocomial meningitis by MDR Gram negative bacteria was reviewed by Abad-Restrepo et al., <sup>1)</sup>.

## Outcome

Multivariate logistic regression was performed by Sam et al., and found that the use of steroid ( $P = 0.014$ ), *Pseudomonas aeruginosa* infection ( $P = 0.010$ ), multiple organism infection ( $P = 0.017$ ), lower Glasgow Coma Scale ( $P = 0.043$ ), and a longer duration the EVD was in place before the diagnosis of Ventriculostomy-related infection (VRI) ( $P = 0.008$ ) were related with higher mortality <sup>2)</sup>

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Of the case series investigating surgical instrument reprocessing with patient outcomes, improperly cleaned and sterilized neurosurgical instruments and contaminated rinse water were linked to *Pseudomonas aeruginosa ventriculitis* and *Mycobacterium* port site infections, respectively.

Large gaps exist between instrument reprocessing practices in LMICs and recommended policies/procedures. Identified areas for improvement include instrument cleaning and decontamination, sterilization aspects of instrument reprocessing, and verification of sterilization. Education and training of staff responsible for reprocessing instruments and realistic, defined policies and procedures are critical, and lend themselves to improvement interventions <sup>3)</sup>.

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A man with ventriculitis caused by *P. aeruginosa* and carbapenem-resistant *K. pneumoniae* was successfully treated with i.v. ceftazidime-avibactam and intrathecal amikacin <sup>4)</sup>.

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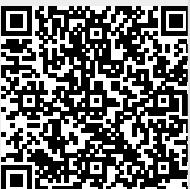
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