Infection of the ventricular cavity and of the ependymal lining is most often iatrogenic in origin, being a complication of a shunting procedure or of intrathecal chemotherapy. The emergence of multidrug-resistant Gram-negative bacteria and the lack of new antibiotics to combat them have led to the revival of polymyxins, an old class of cationic, cyclic polypeptide antibiotics.

Polymyxin B and polymyxin E (colistin) are the two polymyxins used in clinical practice. Colistin is a polymyxin-type antibiotic, disrupting the structure of Gram-negative organisms’ cell membranes, rarely used parenterally because it has nephrotoxic side effects. The polymyxins are active against selected Gram-negative bacteria, including Acinetobacter species, Pseudomonas aeruginosa, Klebsiella species and Enterobacter species [1]. We report a case of multidrug-resistant P. aeruginosa ventriculitis treated successfully with intrathecal colistin.

There are few case reports about the treatment of ventriculitis with intrathecal use of colistin. In a case report, meningitis caused by a multiresistant Gram-negative rod was successfully treated with intrathecal colistin 5 mg/day on day 1 and with 10 mg intrathecal colistin per 24 hours for 21 days thereafter [2].

We used intrathecal colistin 5 mg/day for 21 days for the treatment of multidrug-resistant P. aeruginosa and succeeded without any side effects. Our experience shows that intrathecal colistin is a safe and curative treatment drug for multidrug-resistant P. aeruginosa ventriculitis.

Competing interests
The author(s) declare that they have no competing interests.

References