

Citrobacter koseri treatment

Since abscesses may grow very large in neonates before manifesting clinical signs, neuroimaging studies are pivotal for diagnosis and prediction of adverse complication as early as possible ¹⁾.

Citrobacter koseri treatment is based on prolonged [antibiotics](#), but neurosurgery is often necessary ²⁾

Once initiated, spinal puncture should be repeated within 24–72 h and periodically to confirm sterilization of the CSF. The persistence of altered CSF biochemistry or the lack of clinical improvement requires a review of the treatment and repeated scans in order to rule out possible complications. Administration of combined antibiotics with different mechanisms of action – intracellular or extracellular is recommended. ³⁾.

Citrobacter is resistant to ampicillin in 97 % of cases, but is susceptible to third-generation cephalosporins. Its susceptibility to aminoglycosides varies; it is especially susceptible to gentamicin. Intravenous chloramphenicol can be an alternative because of its good capacity for penetrating brain tissue, although its haematological toxicity can be serious ⁴⁾.

Citrobacter is also sensitive to carbapenems, piperacillin–tazobactam and trimethoprim with or without sulfamethoxazole ^{5) 6)}.

However, the initial administration of cefotaxime and aminoglycosides is reportedly associated with disappointing results, partly explained by the poor pharmacokinetics of the aminoglycosides and the emergence of resistance to cephalosporins because of the induction of β -lactamases. The infection usually has an initial intracellular phase that does not respond effectively to any of these antibiotics ⁷⁾.

Neurosurgical treatment is recommended when the infection cannot be brought under control satisfactorily, abscesses exceed 2.5 cm or cranial hypertension is present. Abscess drainage can help to confirm the diagnosis and reduces the mass effect and bacteriological load and improves the efficacy of systemic treatment ⁸⁾.

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Last update: **2024/06/07 02:57**

