

Sepsis-associated encephalopathy

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1 Sepsis-associated encephalopathy may be the first symptom of sepsis

More than half of patients with sepsis show features of sepsis-associated encephalopathy, which may be the first manifestation of sepsis before admission to hospital and the intensive care unit (ICU).¹ Mortality rates rise with increasing severity of sepsis-associated encephalopathy, reaching up to 70%.¹

2 Sepsis-associated encephalopathy presents as delirium

Sepsis-associated encephalopathy presents as an acute impairment of consciousness, with signs of delirium such as attention deficits or disorganized thinking. Further signs include hallucinations, abnormal sleep rhythms and agitation.¹ However, symptoms are not specific for sepsis-associated encephalopathy. Given that early detection of sepsis is critical to the outcome, incipient sepsis should be excluded in all patients with delirium of unknown origin.¹ Patients who have sepsis or are at risk of developing it should be regularly assessed for signs of delirium (e.g., with the Confusion Assessment Method for the ICU or the Intensive Care Delirium Screening Checklist).¹ Early detection rates of sepsis can be increased if nursing staff on all wards are trained to recognize delirium.²

3 Critical illness polyneuropathy and myopathy may accompany sepsis-associated encephalopathy

About 70% of patients with sepsis-associated encephalopathy develop critical illness polyneuropathy and myopathy within days to weeks after onset of sepsis, presenting with general weakness (the Medical Research Council scale can be used to quantify) and a distal loss of sensitivity to pain and temperature.³ Critical illness polyneuropathy and myopathy may be validated by nerve conduction studies and electromyography. They are associated with failure to wean from ventilation, impaired recovery and increased mortality, and usually last longer than sepsis-associated encephalopathy.^{3,4}

4 Treatment of sepsis-associated encephalopathy is symptomatic

Fighting the systemic infection leading to sepsis with associated encephalopathy is the major aim of treatment. If sedative medication is necessary to treat agitation, benzodiazepines should be avoided. Use of dexmedetomidine is associated with lower mortality rates and longer encephalopathy-free intervals than lorazepam.⁵ Alternatively, antipsychotic medication (e.g., low-dose haloperidol) may be used.¹ Early mobilization should be part of the therapeutic regimen.

5 Sepsis-associated encephalopathy often results in long-term impairments

Long-term deficits associated with sepsis-associated encephalopathy include cognitive deficits (10%–20%), anxiety and stress disorders (10%–30%), and lower quality of life.^{1,6} On average, survivors have 1.6 new functional impairments in activities of everyday life, such as taking medication and getting into bed.⁶ Persistent cognitive deficits may be monitored by using the Montreal Cognitive Assessment. Long-term recovery rates have not been assessed, but functional rehabilitation and psychotherapy reduce symptom severity.⁷

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