Ventriculoperitoneal shunt infection treatment

see also Shunt infection treatment.

Treatment of a shunt infection may include removal of the infected hardware, placement of a drainage device, and use of IV or intraventricular antibiotics.

Management of CSF shunt infection should include removal of the device, external drainage, parenteral antibiotics, and shunt replacement once the CSF is sterile [1) 2) 3) 4) 5)].

If device removal is not feasible, intraventricular antibiotics may be useful [6)].

In 2017, the Infectious Diseases Society of America (IDSA) published guidelines for healthcare-associated ventriculitis treatment and meningitis treatment [7)].

In a ventriculoperitoneal shunt, the distal tip of the shunt lies within the peritoneal cavity and is more susceptible to gram negative bacteria; gentamicin may be added for synergy [8)].

The incidence of shunt infection is still high despite routine administration of perioperative antibiotics. A lower incidence of shunt infection was observed when antibiotic impregnated shunts (AIS) were used to treat hydrocephalus and a rapid cure was reported in cases of ventriculitis when antibiotics were injected into external ventricular drain (EVD).

Infection associated with a ventriculoperitoneal shunt is a severe complication with a high morbidity and substantial mortality. There are no guidelines to choose antibiotics in case of shunt infection. Most surgeons use antibiotics of their choice whereas limited centres follow their own antibiotic policy. An alarming increase in antibiotic resistance has led to rising morbidity and mortality.

References

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