VPS infection is the most frequently observed complication. VPS infection is related to substantial morbidity and mortality, and exerts a negative impact on the quality of life of patients. Considerable personnel and financial resources have been devoted to its diagnosis and treatment [1].

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).

Despite the use of systemic antibiotic agents its incidence ranges between 5 and 15%.

Most data about these infections come from the Western literature. Few data about infecting organisms in Africa are available

Ochieng' et al. conducted a retrospective study of patients with VPS infections recorded in the neurosurgical database of BethanyKids at Kijabe Hospital between September 2010 and July 2012.

Among 53 VPS infections confirmed by culture, 68% occurred in patients who were younger than 6 months. Seventy-nine percent of the infections occurred within 2 months after shunt insertion. Only 51% of infections were caused by Staphylococcus species (Staphylococcus aureus 25%, other Staphylococcus species 26%), whereas 40% were caused by gram negative bacteria. All S. aureus infections and 79% of other Staphylococcus infections were sensitive to cefazolin, but only 1 of 21 gram-negative bacteria was sensitive to it. The majority of gram-negative bacterial infections were multidrug resistant, but 17 of the 20 gram-negative bacteria were sensitive to meropenem. Gram-negative bacterial infections were associated with worse outcomes.

The high proportion of gram-negative infections differs from data in the Western literature, in which Staphylococcus epidermidis is by far the most common organism. Once a patient is diagnosed with a VPS infection in Kenya, immediate treatment is recommended to cover both gram-positive and gram-negative bacterial infections. Data from other Sub-Saharan countries are needed to determine if those countries have the same increased frequency of gram-negative infections [2].

1)
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2)
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