

Original Article

Complications of Ventriculoperitoneal Shunts in Children in Dar es Salaam

¹ ADA Kinasha, ¹ JF Kahamba, ² IT Semali.

Neurosurgical Unit¹ and Department of Epidemiology and Biostatistics², Muhimbili University College of Health Sciences, Dar es Salaam Tanzania

Correspondence to: Dr. A.D.A. Kinasha, P.O. Box 65366, Dar es Salaam, Tanzania.
E-mail, akinasha@muchs.ac.tz

Background: From the few reports available, VP shunt surgery in sub-Saharan Africa is associated with significant complications. This study was aimed at establishing the pattern, causes and frequency of complications of VPS in Tanzania.

Methods: Sixty five of the 102 children with hydrocephalus treated with ventriculoperitoneal shunts between January 1996 and January 1999 were studied prospectively. The first follow-up was at 2 weeks postoperative when the wounds were evaluated and occipitofrontal circumference measured. Further follow-ups were at 4 weeks and at three months. Collaborating staff of the Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) thereafter regularly followed up the children at home.

Results: The male to female ratio was 1.8 to 1. Forty-seven of the children (72%) were less than 12 months old but no patient was under 1 month of age at operation. The mean occipitofrontal circumference was 50.7cm. Shunt blockage was the commonest complication (32.3%) followed by infection (24.6%). The combined complication rate of shunt infection and wound infection was 46.1%. Shunt-related mortality was 13 (20.0%). There was no statistically significant correlation

between the occipitofrontal circumference and type of complication or mortality. The mean age among the patients showing disconnection was 21.3 months compared to a mean age of 8.1 months for those not having this complication (P-value=0.04)

Conclusion: The complication rates were higher than those in Western series but compared well with findings from sub-Saharan Africa other studies.