

## THESES

### INFECTIONS FOLLOWING VENTRICULOPERITONEAL SHUNTS IN CHILDREN AND TEENAGES (ABSTRACT)

**\*THESIS. ARACAJU, 2005**

*MÁRCIA MARIA MACÊDO LIMA \*\**

The management of hydrocephalus by means of a ventriculoperitoneal shunt (VPS) has, as a major threat, surgical infections. Factors, such as cause of hydrocephalus, age below six months, shunt primary insertion, training curve of surgeons, conditions of antisepsis and length of the procedure contribute to the occurrence of infectious complications.

The study aimed at determining the incidence, cause, site of occurrence and clinical and laboratory manifestations of infections in the children and teenagers who underwent VPS in Hospital Gov. João Alves, Aracaju-SE.

Fifteen patients were studied prospectively from January 2003 to October 2004. Hospital records were analysed and data were obtained during hospital stay and after discharge. The results were analysed through Yates Chi-square, Fisher's exact test, relative risk and odds ratio. A confidence interval of 95% was used. All patients underwent VPS because of hypertensive hydrocephalus and subsequent infection rate per procedure was 27.6%. Infection rates according to surgical risk index were 25.7% for risk 0 and 30.4% for risk 1/2 (NNISS-CDC). Surgical site infection (deep and superficial) was the major complication (87.5%) with early appearance (mean 27.6 days). Fever was the most frequent sign in 13 of 16 cases. Infection related mortality rate was 10% (5/50). However, there was no statistical significance for cause of hydrocephalus ( $p=0.858$ ), type of procedure ( $p=0.330$ ), age at diagnosis ( $p=0.926$ ), pre-operative length of stay ( $p=0.172$ ), duration of procedure ( $p=0.534$ ,  $RR=1.09$ ,  $IC95\% [0.6-2.0]$ ), antibiotic prophylaxis ( $p=0.567$ ), previous use of CNS catheter ( $p=0.361$ ) and risk index (0, 1,

2) ( $p=0.926$ ,  $RR=1.07$ ,  $IC95\% [0.76-1.49]$ ).

The present study was meant to characterize the management of hydrocephalus at HGJAF and identify problems that could be minimized through prevention of infectious complications.

**KEY WORDS:** hydrocephalus, ventriculoperitoneal shunts, shunt infection.

\*Infecções em dispositivos neurológicos implantáveis em crianças e adolescentes. (Resumo) Tese de Mestrado, Universidade Federal de Sergipe (UFS) (Área: Ciências da Saúde). Orientador: Carlos Umberto Pereira

\*\*Address: Avenida Sizino Martins Fontes 84 / 102, 49032-510 Aracaju SE, Brasil.