

Introduction

The purpose of this project was to describe our population of premature infants and their initial surgical treatment of CSF diversion, specifically looking at complications.

Methods

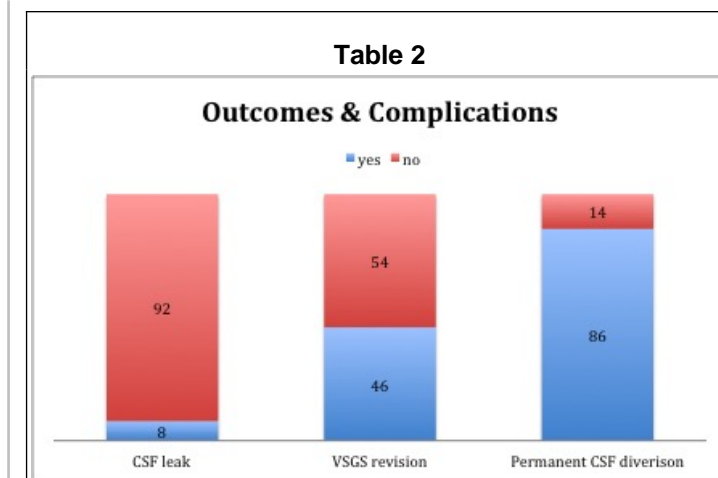
A retrospective chart review of premature infants with grade III/IV intraventricular hemorrhage who underwent temporization procedure (VSGS) between 2003-2014 was performed. Data points collected included birth information and initial temporary CSF diversion. SPSS (V25) was used for statistical analysis.

Results

We identified a final cohort of 121 premature infants. The cohort is characterized by the following: female (52%), African American (52%), Medicaid (72%), BW ($887 \pm 335g$), ELBW ($<1,000g$; 72%), gestational age (25.75 ± 2.5 weeks, range 22-36), and Grade IV IVH (60%). Analysis showed that only 8% had CSF leak from VSGS which can be explained by head circumference percentile being in the lower range at VSGS placement ($42\% \pm 27\%$, median 39%, $n=51$). However, 46% required VSGS revision and 34% of them were due to infection. 86% of patients subsequently required permanent CSF diversion (ETV/Shunt): 81% received VP shunt and 6% received ETV. Out of those who received VP shunt, 27% had 1 shunt revision, 21% had 2 revisions, and 22% had 3-9 revisions.

Conclusions

Our experience shows that VSGS is an appropriate surgical technique for premature infants with intraventricular hemorrhage. Rates of leaks and infections are relatively low. Some patients can be temporized with VSGS without need for permanent CSF diversion.



Learning Objectives

1. We observed low rates of complications for VSGS in premature infants
2. Only 86% of patients initially requiring treatment with CSF diversion required definitive surgery permanent diversion.

Demographics

