

Long term outcome of neonatal meningitis. Steven J.P, Eames M, Kent A, Halket, S, Holt D and Harvey, D (2003) *Archive Diseases in Childhood* 8, p179- 184.

The aim of this study is to quantify and report long term outcome of neonatal meningitis. The paper reports data collected from 111 children who had suffered neonatal meningitis during the first 28 days of life. These children were compared with 113 matched controls. Children were seen between 9-10 years of age and data was collected using a variety of standard assessment tools to measure neurological outcome. These included the Weschler intelligence scale for children (WISC-III), movement assessment battery for children, audiometry, vision testing, neurological assessment and social and medical data. In addition to the individual assessment results, overall outcome was also reported. The criteria for assessment ranged from normal through mild, moderate and severe.

The paper reports several interesting findings. Most notably, the overall outcome of meningitis cases was significantly worse than controls. Severe outcomes were reported in 9-15% of meningitis survivors and a further 10% were assessed as having moderate but significant sequelae. Impairment in cognitive and motor function was also reported. Interestingly, no difference was shown, as with other studies, for motor, intellectual or overall outcome between group B streptococci (GBS) and gram-negative cases. A further interesting result reported in this study was that despite functional differences between the cases and controls, families regarded the vast majority of children as normal.

These results demonstrate the importance of both clinical follow up and developmental assessment if survivors of neonatal meningitis are to receive optimum care and support in later life. The authors estimate that around 10% of neonatal meningitis survivors will need significant multidisciplinary medical, social and development and follow up and treatment as a result of a severe outcome. Despite the methodological challenges associated with carrying out this type of research, the authors have achieved their objectives and have added considerably to the understanding of the long term outcomes of meningitis in neonates.