Every Country, Everywhere

#GBS
#Meningitis
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South African children: A case cohort study of neurodevelopmental impairment in survivors of invasive Group B *Streptococcus* disease aged 5- to 8-years

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Introduction

Globally, there are about 231,000 early-onset and 161,000 late-onset cases of infant invasive GBS disease (iGBS), with 91,000 deaths, annually (*Gonçalves et al., In Preparation).* Most studies of iGBS adverse sequelae, have focussed on mortality, with limited data describing neurodevelopmental impairment (NDI) beyond early childhood, especially in Sub-Saharan Africa where disease burden is highest.

Aims

To describe long-term NDI outcomes in iGBS survivors and non-iGBS children aged 5- to 8-years in South Africa.

Methods

As part of a five-country study, and building on earlier work, we assessed the prevalence of NDI in 43 children surviving to age 5-8 years and in an age and sex-matched non-iGBS comparison cohort of 117 children using Griffiths Mental Development Scales – Extended Revised and other relevant multi-domain evaluations.

Results

- ✓ 13 (30.2%) iGBS survivors had meningitis and 30 (69.8%) had sepsis.
- ✓ Six (13.9%) iGBS survivors, and five (4.3%) non-iGBS children had moderate-severe NDI.
- ✓ iGBS exposure was associated with a 5.56 (95%CI: 1.07-28.93; p=0.041) adjusted odds of moderate-severe NDI at 5-8 years.
- ✓ Long-term moderate to severe NDI was especially frequent in survivors of iGBS meningitis, but survivors of iGBS sepsis were also found to be affected.

Conclusion

Children surviving iGBS, particularly meningitis, are more likely to have NDI at 5 - 8 years compared to non-iGBS children. Further research is required to improve detection and care for at-risk newborns.

References

Gonçalves *et al.*, Group B Streptococcus infection during and after pregnancy: systematic estimates of regional and global burden. In Preparation

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