Reviewer's report

Title: Clinical features, acute complications, and outcome of Salmonella Meningitis in 24 Neonates and Infants in Taiwan

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Reviewer: Matthijs Brouwer

Reviewer's report:

The article by Wu et al describes a retrospective cohort of 24 children with Salmonella meningitis admitted from 1982-1994 with follow-up data. The data are interesting but the manuscript can be substantially shortened (especially the discussion).

Comments:
- The authors claim to perform a prospective analysis in a retrospectively collected cohort. The follow-up examination can be better characterised as a cross-sectional analysis in survivors as the follow-up was performed at different time-points after the meningitis episodes.
- It is not mentioned if any patients were HIV positive or if there were other risk factors present for severe infections.
- It should be described whether initial antibiotic treatment covered Salmonella in all patients.
- Was CT available during the whole study period at the study site? In 1982 CT might not have been widely available and MRI certainly wasn't. Therefore the rate of intracerebral complications might be underestimated. This should be mentioned in the discussion. The nr of patients in which brain sonography, CT-scan and ventricular tap were performed should be mentioned. The complications should be given as nr/nr evaluated (%) unless all patients received adequate brain imaging.
- The cohort is quite old and therefore treatment of these patients might not be considered adequate according to current standards. The authors should discuss potential changes in current population and antimicrobial susceptibility compared to their cohort (e.g. dexamethasone treatment, improved critical care facilities, new antibiotics). The authors should discuss current optimal treatment for Salmonella meningitis in children.
- The outcome classification on the modified 5 point scale is not very useful; it mixes functional outcome with neurological investigation or imaging. Hydrocephalus without complaints for instance is considered a 'mild adverse outcome' while the patient is perfectly fine. It would be better to use the Glasgow Outcome Scale or Modified Ranking Scale.
- In the tables data should be given as nr/nr evaluated (%) unless all data were available for all patients which is hard to imagine in a 28 year old retrospective cohort.

- The CSF values should be presented as medians with interquartile ranges.

- The text in the results “Four children were found to have intracranial infections” should be changes to “Four children were found to have focal intracranial infections”

- Discussion: 2nd paragraph 3rd sentence is not correct English; it’s unclear what the authors want to say.

- The discussion about early and late seizures can be omitted. Seizures in this patient group are clearly related to the severity of brain damage and intracranial complications.

- Table 3 does not add much, except for the first column stating the total nr of survivors with sequelae. This should be combined with the outcome data of table 1.

- Coma is only mentioned in table 4, but not in table 1 or in the results. The definition of coma and other levels of decreased consciousness should be given. If available Glasgow coma scale scores would be preferable.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests