

Who's Here for Glue Ear?

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Introduction

Glue ear is the most common cause of childhood hearing loss and is particularly prevalent in children under 5 (1). It's importance can be overlooked when seen as self-limiting or easily resolved with grommets. However, there can be associated long term auditory difficulties following glue ear (2) and any hearing loss in the early years requires attention and research.

To better understand the course of glue ear locally, we conducted a retrospective study measuring the effects of age and time on glue ear persistence and associated hearing loss.

Methods

84 children under 12 years with bilateral type B tympanometry at their initial assessment were included.

The patient management system was used to document age, interval between assessments, tympanometry results and hearing levels at the initial and monitoring assessments.

Statistics were calculated using Excel.

Results

- 70% of children with bilateral glue ear were under 5 years.
- Tympanometry remained type B at the review appointment for 50% of ears in 1-2 year olds, 51% of ears in 3-4 year olds and 48% of ears in children aged 5 and over (*figure 1*).
- At 3 months our data had 45% fewer ears with improved tympanometry compared to the literature (3). This pattern persisted at 6 months (17% fewer ears), 9 months (25% fewer ears) and 12 months (13% fewer ears) post glue ear diagnosis (*figure 2*).
- There was a significant improvement in mean hearing levels at the monitoring appointment ($P=0.0005$) but great variability and no clear pattern related to age (*figure 3*).

Figure 2

	Ages included	n	% non B tymps at Review			
			3 Months	6 Months	9 Months	12 Months
Rosenfeld and Kay 2003 (3)	2-8 years	479-618	56%	72%	81%	87%
Our Data	2-8 years	18-64	11%	55%	56%	74%

Figure 1

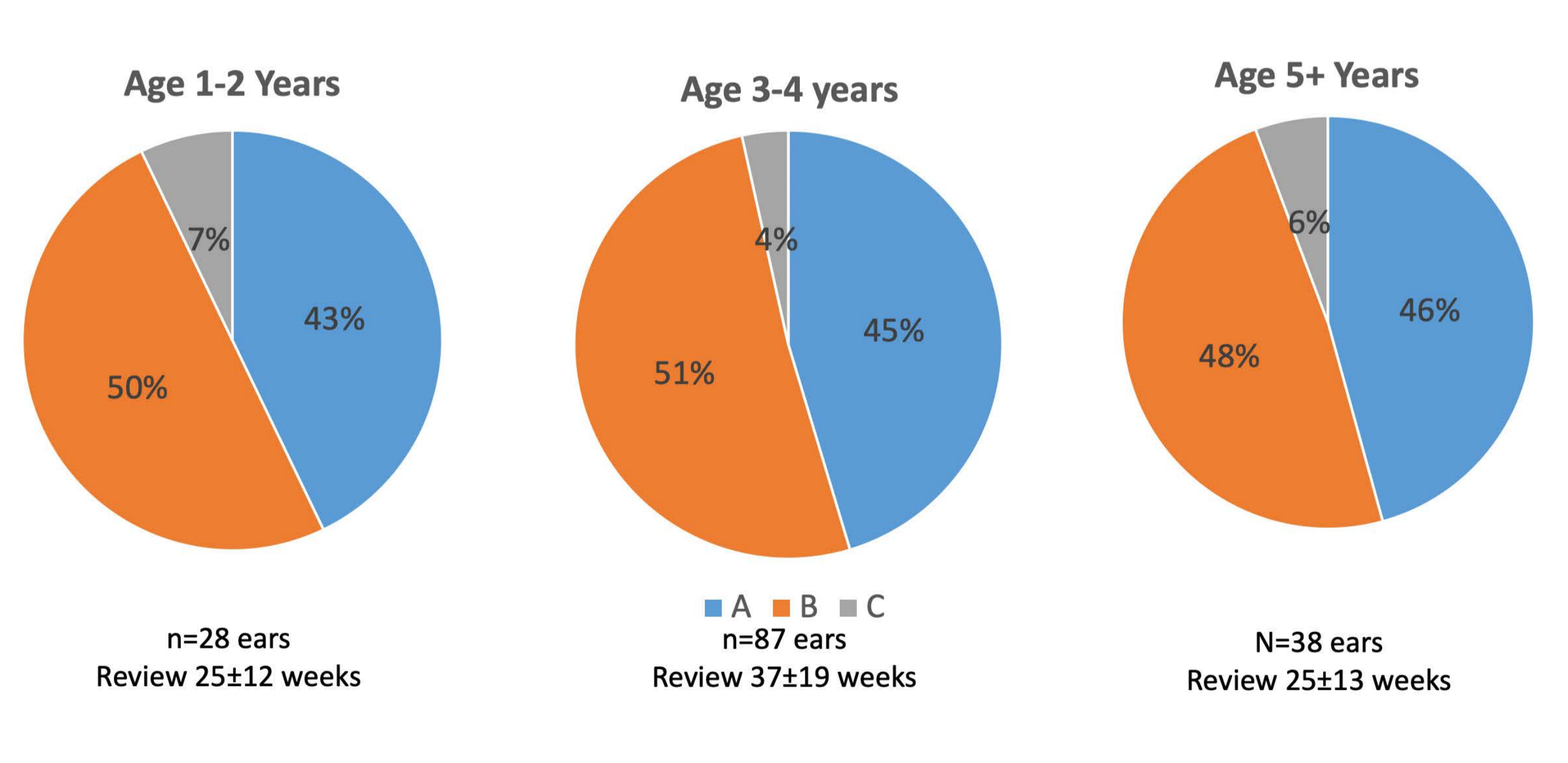
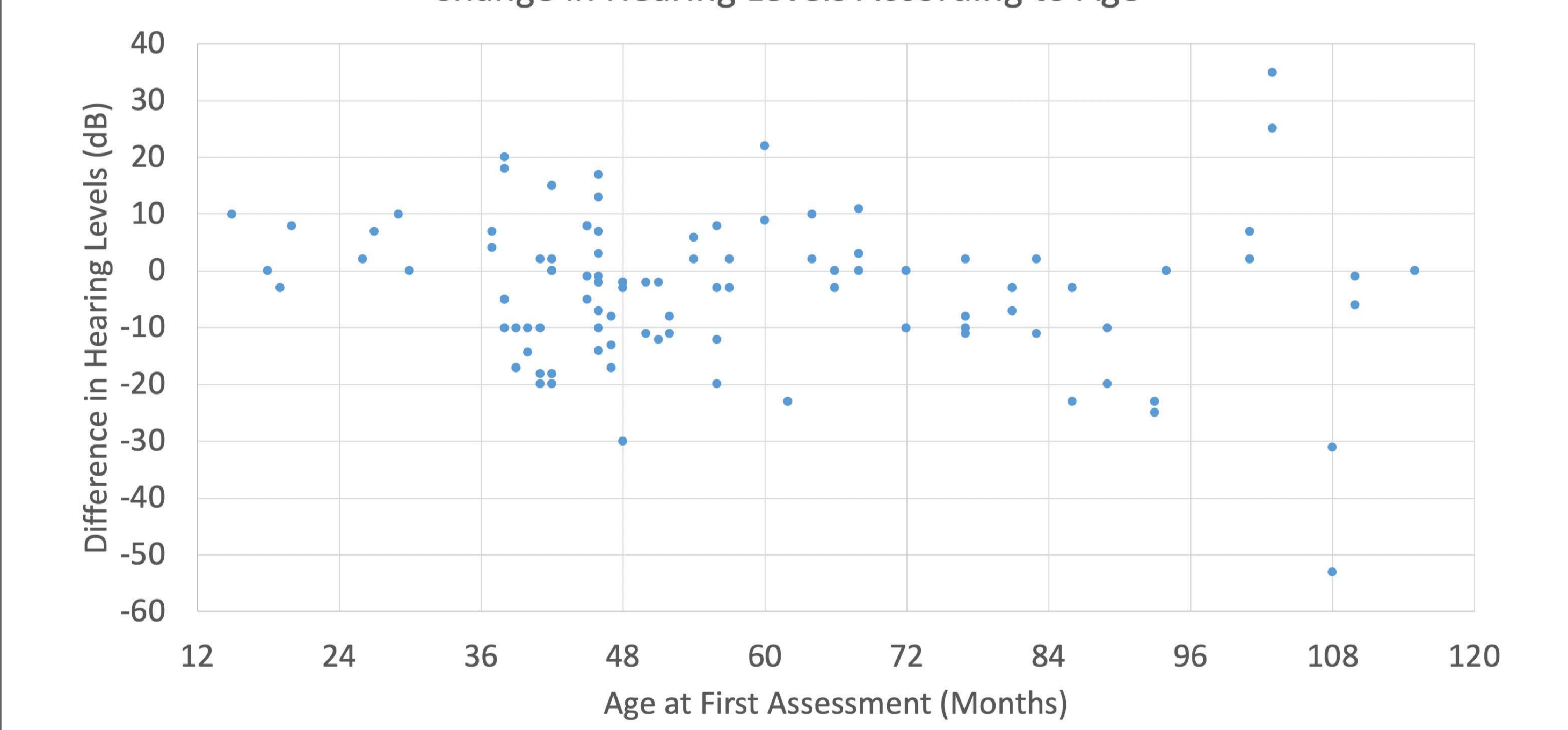


Figure 3



Conclusions

Our research shows a higher prevalence of glue ear in children under 5, but equal persistence across ages with no pattern of improved hearing levels in older children. Therefore, glue ear is less common in our school aged patients, but just as likely to persist and require management.

Glue ear appears to be more persistent in our patients compared to the literature. Although our limited numbers should be considered, environmental factors in our area such as high child poverty, low breastfeeding rates and high smoking rates (4) may be at play (1).

References

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3. Rosenfeld R. and Kay D. (2003). Natural history of untreated otitis media. *Laryngoscope* 2003 Oct;113(10):1645-57
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