

The Anatomical Distribution of Paediatric Orbital Dermoid Cysts: a Systematic Review

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Introduction

- Most common orbital tumour in childhood.
- Site influences diagnosis and surgery
- Rupture rates poorly described

Objectives

- Determine anatomical distribution
- Assess intra-operative rupture rate

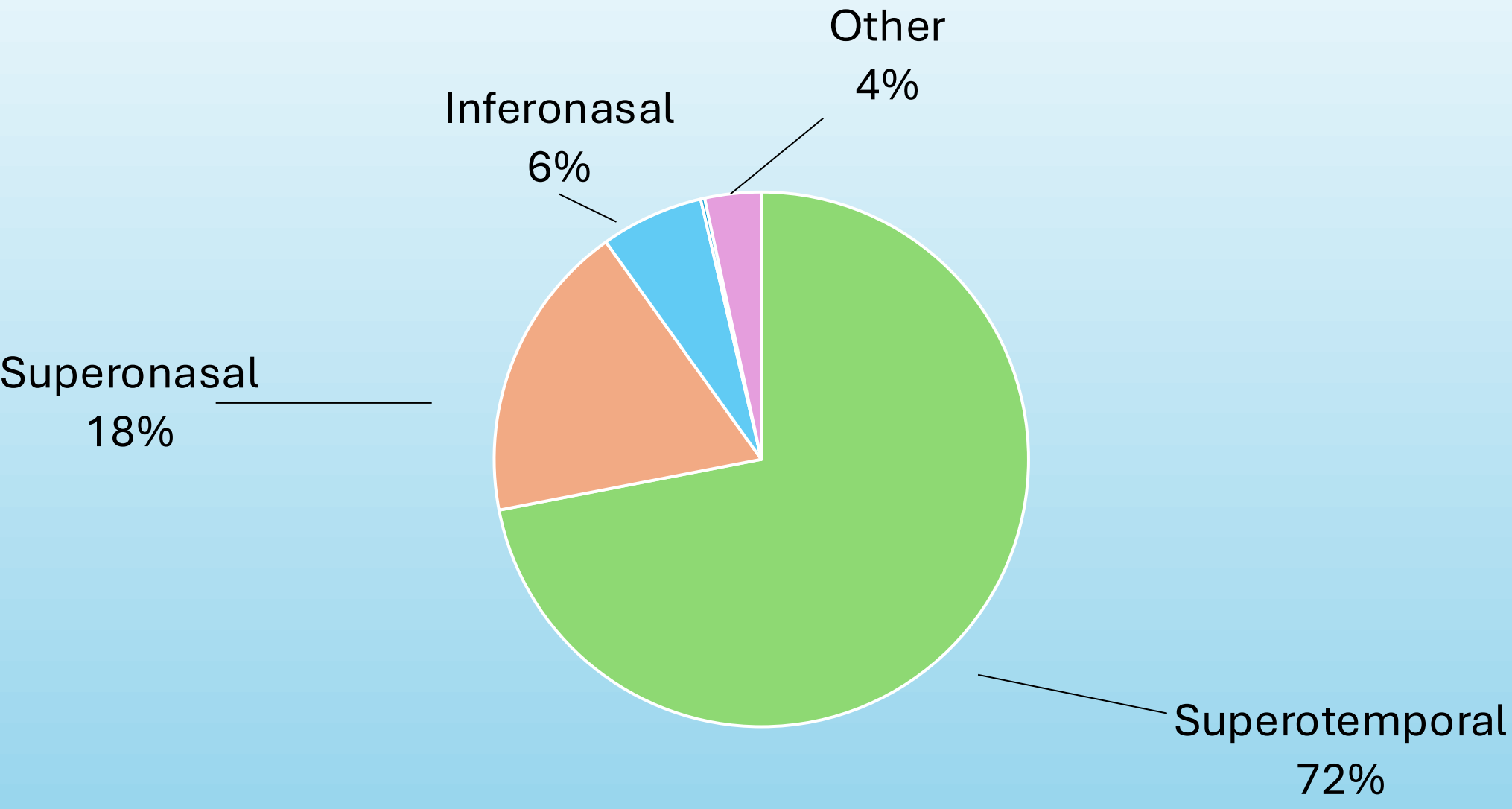
Methods

- Databases: Medline All, Embase, Web of Science
- Risk of bias assessed with the Joanna Briggs Institute checklist (case series/reports).
- 313 studies screened
- 18 studies included

Results

72% Superotemporal
4:1 Superotemporal : Superonasal
14% Rupture rate

Fig. 1: A summary of site-specific prevalence of 2054 cases of orbital dermoid cysts in paediatric/adolescent populations



Superotemporal quadrant was the predominant site (71.96%), followed by superonasal (18.16%), inferotemporal (0.24%) and ‘other’ (3.14%) locations.

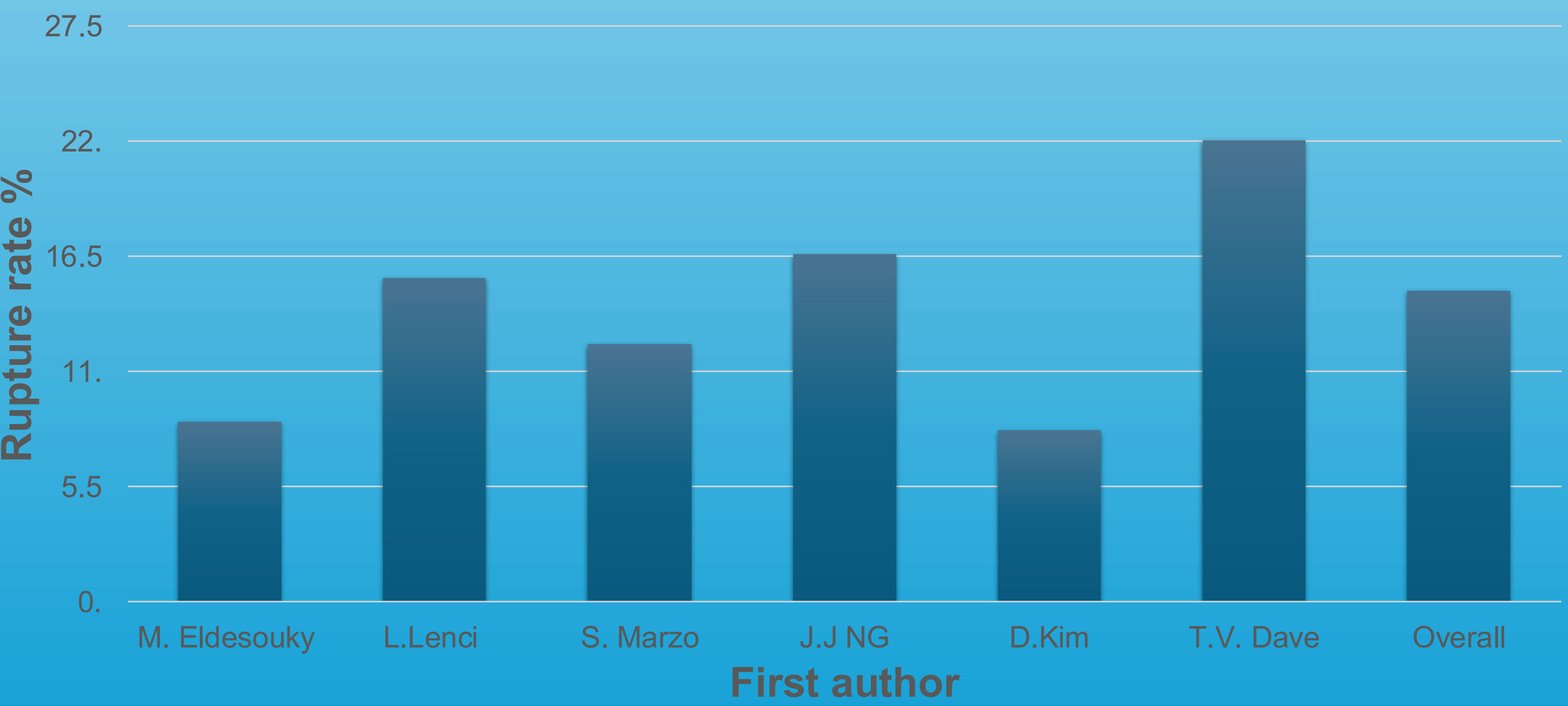


Fig. 2: Intra-operative rupture rate of orbital dermoid cysts in paediatric populations

The overall rate of intra-operative rupture was 14%

Discussion

- This review will be useful for both clinicians and those planning future research on the topic.
- The case reports in this review highlighted the possibility of deep orbital cysts in children
- This review includes 2,054 cases collated from three continents, making a robust dataset with reliable and generalisable results.

Conclusion

- This has been the first and largest systematic review of anatomical location of orbital dermoid cysts and intra-operative rupture in paediatric populations.
- A large multi-centre study is needed to determine dermoid characteristics, patient demographics and operative outcomes in children.

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References:

