

# Aneurysmal Bone Cysts of the Craniofacial Origin: A Systematic Review

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## Introduction

- Aneurysmal bone cysts (ABCs) are blood-filled, locally destructive, benign cystic bone tumors that account for about 9.1% of all primary bone tumors<sup>1</sup>
- While they predominantly arise in the metaphysis of long bones, they have been noted to rarely arise from the skull bones, accounting for 2-6% of cases<sup>2</sup>
- Given the diversity of symptoms that arise from cysts of head and neck origin, knowledge of nonspecific presentations assessing patients for craniofacial symptoms is essential
- Due to the rarity of ABCs of craniofacial origin, its characterization has primarily been limited to case reports and case series
- To our knowledge, there has been no comprehensive systematic review that adequately summarizes the characteristics and management of ABCs in the craniofacial bones

## Methods

- Preferred Reporting Items for Systematic Reviews and Meta-Analysis guidelines (PRISMA) were followed
- Databases included EmBase, Cochrane Library, and PubMed

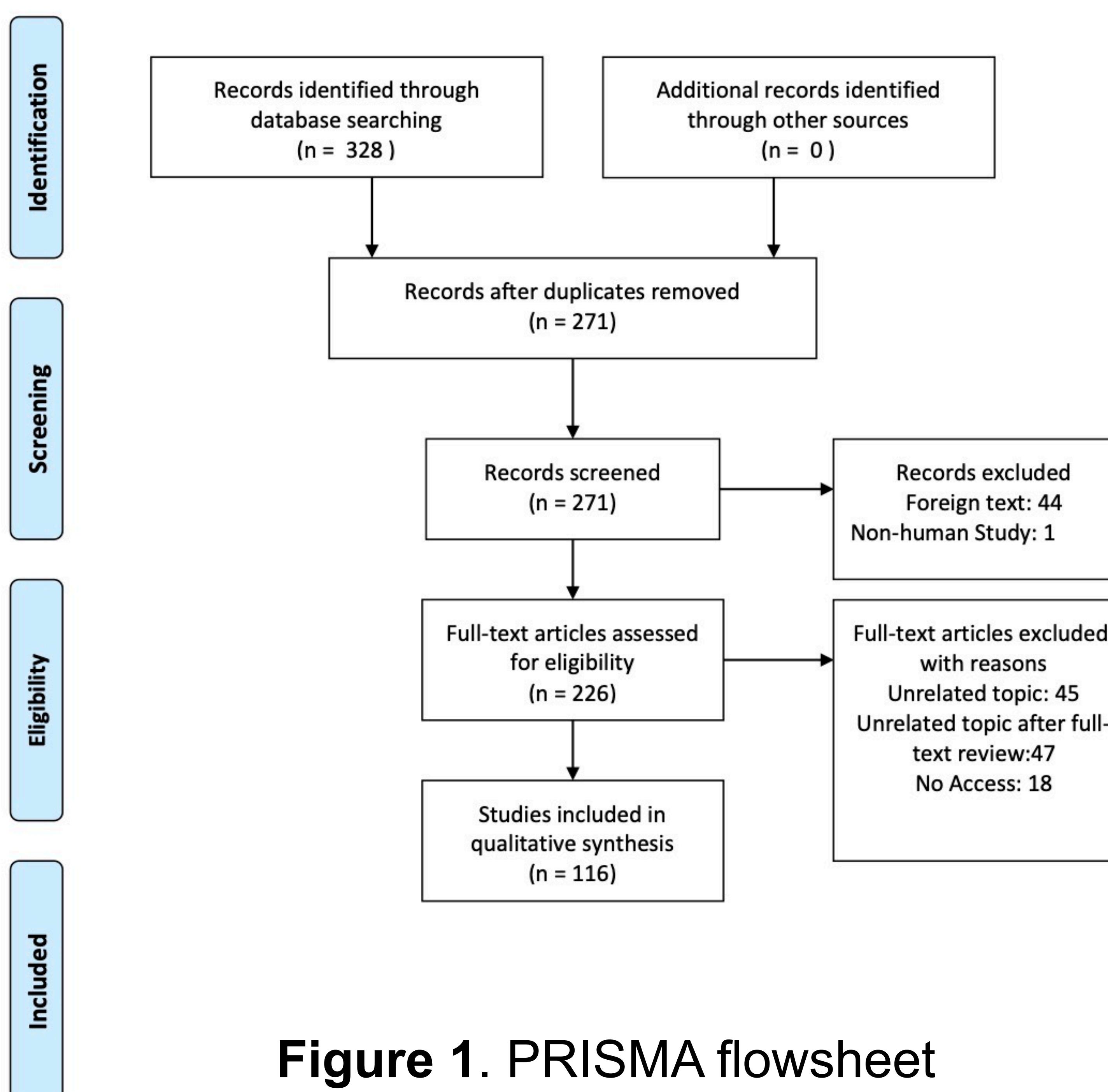


Figure 1. PRISMA flowsheet

## Objectives

- To conduct a systematic review outlining patient demographics, clinical characteristics, management, and outcomes of those with aneurysmal bone cysts of the craniofacial bones

## Results

- A total of 127 patients from 116 studies were identified
- Age ranged from 8 months to 90 years, with a mean age of 19.0 years

- The most commonly affected craniofacial locations were the mandible (n=31, 24.4%), temporal bone (n=21, 16.5%), and occipital bone (n=14, 11.0%)
- The most common presenting symptoms included a nontender mass (n=51, 40.2%), a tender mass (n=31, 24.4%), and generalized headache (n=30, 23.6%)
- All patients underwent surgical resection, with one patient requiring adjuvant radiation in addition to surgery
- 121 patients were disease and symptom free without evidence of recurrence (17.4 month mean follow up, 5.4 months average time to first recurrence)

## Conclusion

- The current literature's characterization of ABCs in craniofacial bones is limited by case reports and case series.
- Given the rarity of these tumors, head and neck surgeons must rely on systematic reviews such as the present analysis to guide management.

## References

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