

# The Clinical Manifestations In Children With Tonsillar Lymphoma

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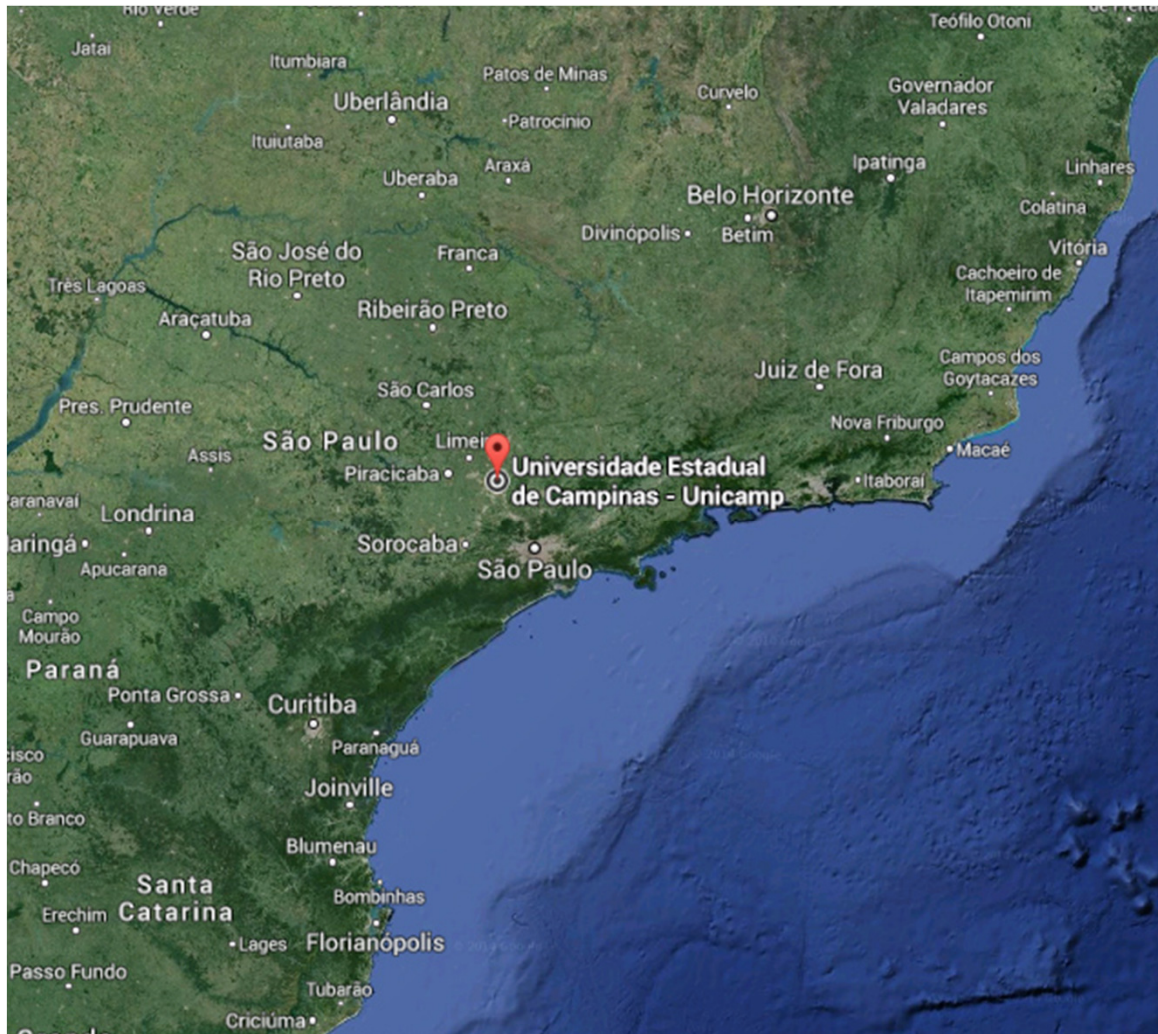


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# Clinical Manifestations In Children With Tonsillar Lymphoma: A Systematic Review



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## Clinical manifestations in children with tonsillar lymphoma: A systematic review

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# Introduction

- Lymphoma is the third most common childhood malignancy and the most common in the head and neck.
- Approximately 15% of head and neck lymphomas in children affect the Waldeyer's ring
- Non-Hodgkin lymphoma (NHL) is the most common type
- The palatine tonsils (PT) are the most frequent site of involvement for extra-nodal NHL
- Early diagnosis and treatment are of great importance in the prognosis of tonsillar lymphoma patients.



# Objective

To realize a systematic review of the literature on the clinical manifestations present at diagnosis of tonsillar lymphoma in pediatric patients

# MATERIALS AND METHODS:

- Articles in English, Spanish or Portuguese in the last 15 years about lymphoma in palatine tonsil in children from PubMed/Medline, LILACS, IBECs, Cochrane, SCIELO, BIREME and Scopus.
- The Mesh terms and free text words used were "tonsillar lymphoma and children."
- Two authors were responsible for selecting all the articles that had been completely read.

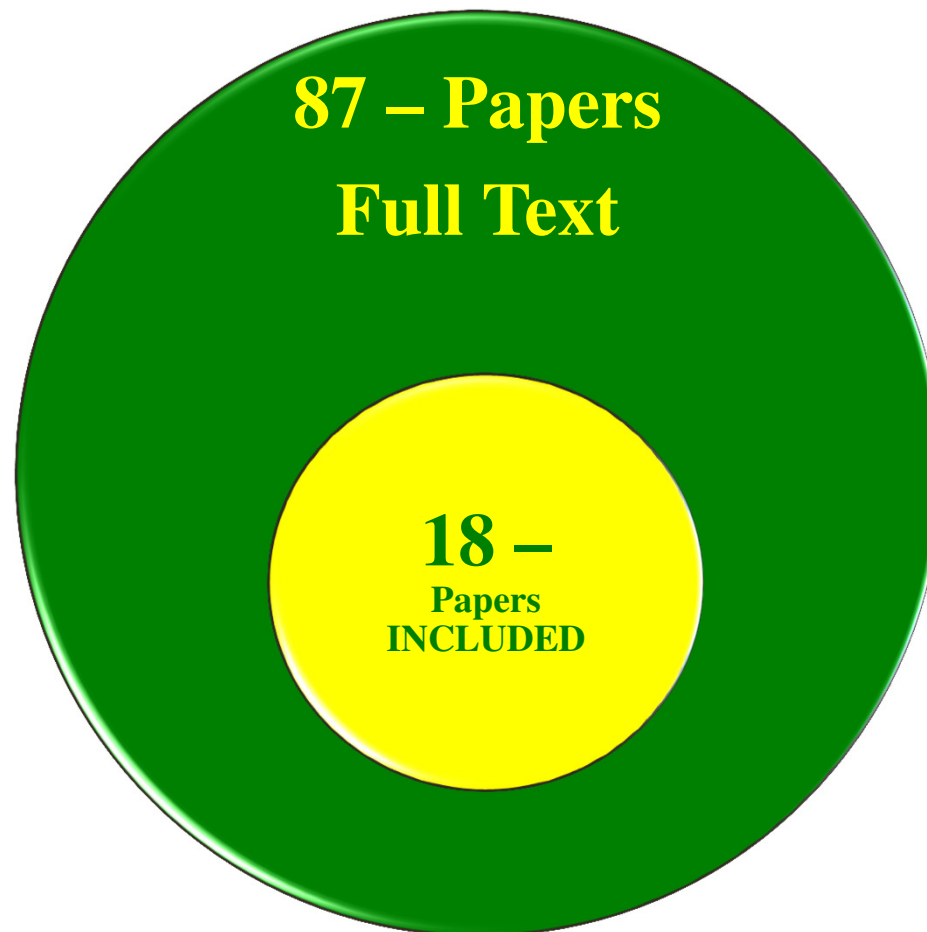
# MATERIALS AND METHODS:

Articles and case reports were included covering the pediatric age group, considered up to 18 years old that contained information of the clinical manifestations of tonsillar lymphoma at diagnosis



# RESULTS:

- 87 articles were found, in which 18 (20.6%) met the inclusion criteria.



# RESULTS:

- There were 66 cases of PT lymphoma
- The age ranged from one to 17 years with a mean of 7.4 years
- There was a predominance of male patients, with a male/female ratio of 1.95
- Most of the cases (68.3%) were from North America, followed by Europe with 13.7% cases, Australia with 10.5%, South America with 4.5%, and Africa with 3% of the cases.

# Prevalence of clinical manifestations

SIGN/ SYMPTOM	Cases	%
Unilateral tonsillar enlargement/ Tonsillar asymmetry	48	72.7%
Color alteration/ Visible lesion in PT	30	45.4%
Cervical lymphadenopathy	20	30.3%
Dysphagia	19	28.7%
Snore/apnea	16	24.2%
Recurrent tonsillitis	8	12.1%
Fever	7	10.6%
Weight loss	6	9%
Vocal alteration/difficulty to speak	6	9%
Local pain (tonsillar)	5	7.5%
Tonsillitis treatment without improvement	4	6.6%
Immunosuppression	4	6.6%
Auricular fullness	2	3%
Prior radiotherapy	1	1.6%
TOTAL (n=66)		

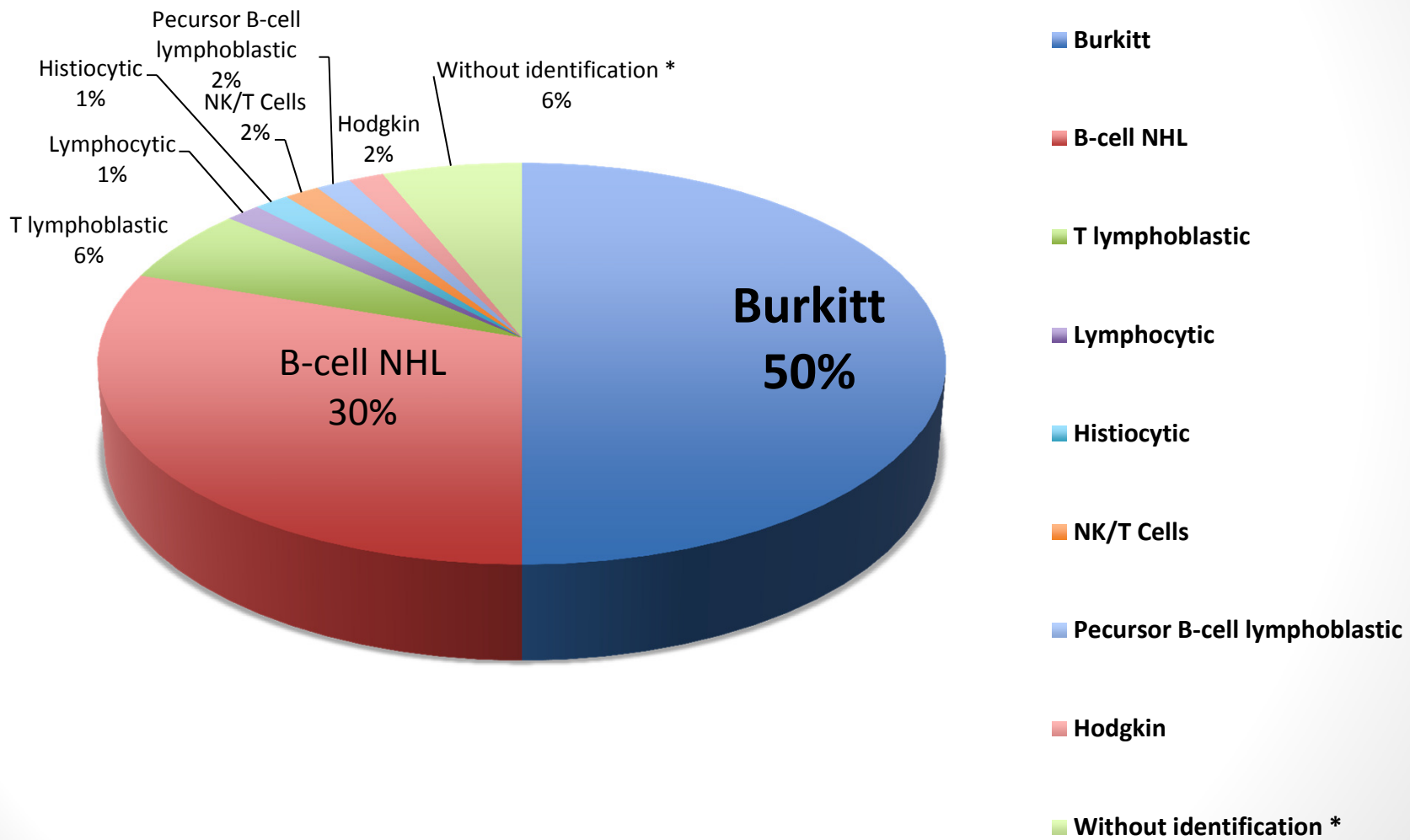


# RESULTS:

The presence of B symptoms occurred in only 16% of the patients

**Burkitt's lymphoma** was the most common type (50%), followed by B-cell NHL (30%), and T lymphoblastic (6%)

# RESULTS:



# Discussion:

- This data contrast with the data collected for the adult population with PT Lymphoma, in which the most common manifestations are dysphagia or odynophagia and cervical lymphadenopathy
- This was the largest review of PT lymphoma in children and the first systematic review that included case reports and appointed the most common symptoms in this disease.



# Discussion:

Children with a high level of suspicion should undergo to surgery of tonsillectomy for diagnosis.

Children who present only some of the manifestations should have a close follow up and be submitted to complementary examinations such as ultrasound when cervical lymphonodes are present. PET/CT may be discussed with the family.

For cases with atypical manifestations we advise only a close clinical follow up and perform complementary examinations or surgery if the level of suspicion increases.

# Conclusion:

- The most common clinical manifestations found in children with PT lymphoma were **unilateral tonsillar enlargement, alteration of appearance of the PT, cervical lymphadenopathy, dysphagia, and snoring**
- **Burkitt's** was the most common type of lymphoma, followed by B-cell NHL
- A detailed description of the PT lymphoma cases and the use of criteria for the classification of tonsil asymmetry are important for future review.

# Key Points:

Considering that early diagnosis and treatment are of great importance in the prognosis of tonsillar lymphoma patients;

**The knowlegde of the most frequent clinical manifestations are relevant for early suspicion and diagnosis**

# Key Points:

**Most frequent clinical manifestations:**

**Unilateral tonsillar enlargement / Tonsillar asymmetry (72%)**

# Key Points:

**Most frequent clinical manifestations:**  
**Alteration of appearance of the PT (45%)**

# Key Points:

**Most frequent clinical manifestations:**

**Cervical lymphadenopathy (30%)**



# Key Points:

**Most frequent clinical manifestations:**

**Dysphagia (28%) and Snoring (24%)**



# Key Points:

**Other frequent clinical manifestations:**

**Recurrent tonsillitis / Weight Loss / Fever**



# Key Points:

## Tonsillar Lymphoma:

# Future Directions:

- **Association between unilateral tonsillar enlargement and lymphoma in children: A systematic review and Meta-Analysis**

The main cause of asymmetry of palatine tonsils was lymphoid hyperplasia, followed by lymphoma and nonspecific benign changes

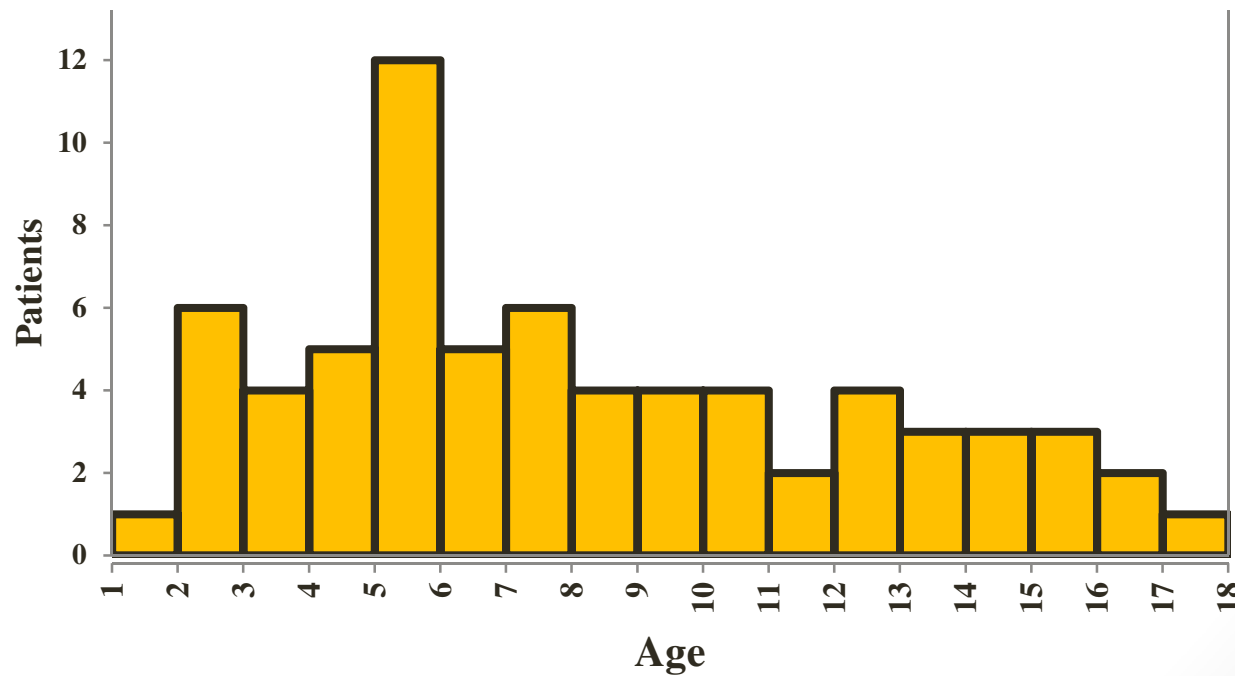
The asymmetry of tonsils was present in 73.2 % of cases of lymphoma

There was association between asymmetric palatine tonsils and lymphoma, with a likelihood ratio of 43.5 for children with asymmetry of palatine tonsils and 8938.4 for children with asymmetry of tonsils and other signs of suspicion for malignancy

# Future Directions:

- **Tonsillar lymphoma in children: An age distribution study**

The children's ages ranged from 1 to 17 years with a mean of 7.7 years.



# Future Directions:

- **Tonsillar lymphoma in children: An age distribution study**

Most patients (55%) are concentrated in the age group 2-7 years, with a peak between 4 and 5 years.

There was no difference between the pattern of age distribution between males and females.



# Thank you for the attention

## **Clinical Manifestations of children with tonsillar lymphoma**

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