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ORIGINAL ARTICLE

Cervical lymphadenopathy in children

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ABSTRACT:

Background: Cervical lymphadenopathy (CLA) is a frequent problem in clinical practice in paediatrics age group. The present study evaluate cases of cervical lymphadenopathy in children. **Materials & Methods:** 120 patients of cervical lymphadenopathy of both genders were enrolled. All underwent examination, complete blood count (CBC), Mantoux test, chest x ray and fine needle aspiration cytology (FNAC). **Results:** Out of 120 children, boys were 70 and girls were 50. Common site was submental seen in 32, anterior cervical in 26, posterior cervical in 20, submandibular in 17, occipital in 15 and juglo- diagastric in 10. The difference was significant (P< 0.05). Diagnosis reactive hyperplasia in 90, TB lymphadenitis in 5, lymph node abscess in 10 and hodgkin's lymphoma in 5. The difference was significant (P< 0.05). **Conclusion:** Common site of lymph node involvement in children was submental, anterior cervical, posterior cervical, submandibular in 24, occipital and juglo- diagastric.

Key words: Cervical lymphadenopathy, Submental, submandibular

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INTRODUCTION

Cervical lymphadenopathy (CLA) is a frequent problem in clinical practice in paediatrics age group. Common benign causes include bacterial infection, adenoviral illness, and tuberculosis whereas the malignancies causing generalized lymphadenopathy include leukemia, lymphoma or metastasis.[1] Lymphadenitis refers to lymphadenopathies that are due to inflammatory conditions in which there is nodal enlargement, pain, skin changes, fever, oedema and/or pus formation.[2]

It is important to take a careful history to consider a variety of disorders, which may be a clue to the underlying disorder. It might be a usual self-limited infection in younger adults or a malignancy in older patients. Based on different geographical areas, the etiology varies. For example, tuberculosis (TB) is the most common cause of cervical LAP in endemic areas.[3]

Several aspects in the diagnosis of LAP should be considered. In most cases, further investigation is not required as the cause is obvious on primary evaluation (such as infection). In unexplained conditions, laboratory tests, imaging studies, and tissue biopsy are recommended.[4] Imaging can identify the size and distribution of the node more accurately than can physical examination. Tissue diagnosis by fine needle aspiration biopsy or excisional biopsy is the gold standard evaluation for LAP.[5] If the anamnesis and clinical examination prove inconclusive, or if confirmation of a suspected diagnosis is required, further diagnostic means are available, including serological tests, sonography as the main imaging technique, and for certain special indications also MRI and CT.[6] The present study evaluate cases of cervical lymphadenopathy in children.

MATERIALS & METHODS

The present study was conducted on 120 patients of cervical lymphadenopathy of both genders. Parents were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. All underwent examination, complete blood count (CBC), Mantoux test, chest x ray and fine needle aspiration cytology (FNAC). Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 120		
Gender	**Boys**	**Girls**
Number	70	50

Table I shows that out of 120 children, boys were 70 and girls were 50.

Table II Site of lymphadenopathy

Site	Number	P value
Submental	32	0.05
Anterior cervical	26	
Posterior cervical	20	
Occipital	15	
Jugulo- diagastic	10	
Submandibular	17	

Table II shows that common site was submental seen in 32, anterior cervical in 26, posterior cervical in 20, submandibular in 17, occipital in 15 and juglo-diagastric in 10. The difference was significant (P< 0.05).

Table II Diagnosis of cases

Diagnosis	Number	P value
Reactive hyperplasia	90	0.01
TB lymphadenitis	5	
Lymph node abscess	10	
Hodgkin's lymphoma	5	

Table III shows that diagnosis reactive hyperplasia in 90, TB lymphadenitis in 5, lymph node abscess in 10 and hodgkin's lymphoma in 5. The difference was significant (P< 0.05).

DISCUSSION

Lymphadenopathy (LAP) is the term to describe the conditions in which lymph nodes become abnormal in size, consistency, and number.[7] If the mass originates from the lymph nodes, the first step should be to establish whether the lymph node itself is enlarged: this is the case above a diameter of >1 cm (in the angle of the mandible >1.5 cm) and is defined as lymphadenopathy.[8] A distinction is made between an acute (<2 weeks), subacute (2–6 weeks) and chronic (>6 weeks) course of the lymphadenopathy.[9] The present study evaluate cases of cervical lymphadenopathy in children.

We found that out of 120 children, boys were 70 and girls were 50. Dulin et al[10] found that a homogenous echotexture, oval shape, central necrosis, blurred margins are associated with reactive hyperplasia in majority of cases, while a non-homogenous echotexture suggests other diagnosis. Ultrasonography should not be considered as a definitive mean to rule out neoplasia in patients with persistent lymphadenopathy.

We observed that common site was submental seen in 32, anterior cervical in 26, posterior cervical in 20, submandibular in 17, occipital in 15 and juglo-diagastric in 10. Niedzielska et al[11] conducted a study over two year period amongst children between ages of 1-15 years with persistent lymph node enlargement of >1 cm in diameter and >2 weeks duration. 38(76%) had unilateral cervical lymph node enlargement, while in 12 children (24%) the pathology was bilateral. We found that in 24 children (48%) the lymph nodes regressed in size over 2 weeks' time and in 12 children, (24%) they regressed in 4 weeks' time as proved by ultrasonography examination. Fever was the commonest systemic manifestation in these children.

We found that diagnosis was reactive hyperplasia in 90, TB lymphadenitis in 5, lymph node abscess in 10 and hodgkin's lymphoma in 5. The etiology of generalized adenopathy may sometimes overlap with localized LAP and almost always indicates an underlying disease. Some important and common causes are as follows: The Epstein-Barr virus typically involves the bilateral posterior cervical, axillary, and inguinal lymph nodes, distinguishing it from the other causes of pharyngitis. LAP appears in the first week of exposure and then gradually subsides over two to three weeks. Low-grade fever, fatigue, and prolonged malaise are the other symptoms.[12]

CONCLUSION

Authors suggested that common site of lymph node involvement in children was submental, anterior cervical, posterior cervical, submandibular in 24, occipital and juglo- diagastric.

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