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Original Research Article

A clinico-pathological study of posterior triangle neck swelling: a case series

Trupti Tonape[1], Aditya P. Lad[1]*, Iresh Shetty[1], Bhoomi Raval[2], Sree Kumar Balasubramanian[1]

[1]Department of General Surgery, Dr. D. Y. Patil Medical College Hospital and Research Centre, Pimpri, Pune, Maharashtra, India
[2]Department of Anesthesia, Dr. D. Y. Patil Medical College Hospital and Research Centre, Pimpri, Pune, Maharashtra, India

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***Correspondence:**
Dr. Aditya P. Lad,
E-mail: adityaplad@gmail.com

ABSTRACT

Background: The neck swelling is often surrounded by mystique in arriving at a diagnosis as well as in its management. There are many good approaches to a patient with a swelling in the neck.
Methods: This study was done in Dr. D. Y. Patil Medical College Hospital and Research Centre, Pune. In this study, we have taken 30 cases in study group. Only posterior triangle neck swellings were considered during the study. Clinico-pathological co-relation was done during the study.
Results: In the present study group of 30 patients we found 10 patients to be having Lymphadenitis which includes both tuberculous and non-tuberculous, 8 patients to be having lipoma, 4 patients to be having neck secondaries, 2 patients of cystic hygroma and 6 nonspecific causes like cavernous haemangioma, madelung disease, Kikuchi Fujimoto disease. Further histological co-relation was done.
Conclusions: Incidence of different types of neck swellings were found and rare diseases like Madelung's disease and Kikuchi fujimoto's disease.

Keywords: Cavernouis hemangioma, Cervical lymphadenopathy, Kikuchi Fujimoto disease, Lateral neck swellings, Madelung's disease, Posterior triangle neck swellings

INTRODUCTION

The neck swelling is often surrounded by mystique in arriving at a diagnosis as well as in its management.[1] There are many good approaches to a patient with a swelling in the neck. If one can first identify the structure that is enlarged and match that with the pathologies that may occur within that structure, most of the problems are thus solved, and appropriate investigations can be performed. The task of dealing with a swelling in the neck may seem daunting, but a systemic approach is all that is needed. Swellings in the neck are seen frequently in general practice and often it is easy to make a diagnosis based on clinical examination alone.[2] The most important issue is that possibility of a malignant diagnosis is not over looked and that the pathway of diagnosis and referral of patients with cancer in the neck is appropriate.

The differential diagnosis of a neck swelling is dependent on its location and patient's age. In the adult population, a neck mass greater than 2 cm in diameter has greater than 80% probability of being malignant.[3]

Tuberculous lymphadenitis is one of the common causes of neck swellings in Indian population. It has been

estimated that 1.5% of Indian population is affected with tuberculosis.[4]

Cervical lymphadenopathy is the most frequent neck swelling seen in inflammatory and neoplastic diseases and a diagnostic challenge to the clinicians.[5] It is an altered size or consistency of neck nodes manifested due to local or systemic causes and serves an important purpose in the diagnosis of the underlying disease.[6]

The purpose of the study is to find out correlation of clinical diagnosis with pathological diagnosis, incidence of lateral neck swellings and commonest cause of lateral neck swelling in our setup.[7]

The purpose of this study is to compare clinical diagnosis with pathological diagnosis of lateral neck swellings and to find out incidence of different lateral neck swellings.

METHODS

Present study was a prospective study conducted at Dr. D. Y. Patil Medical College Hospital and Research Centre, Pune in a duration of 6 months (January 2017 to March 2017). Institutional Ethical Committee approval was taken prior to commencement of study.

Plan of the study

- To evaluate patient on basis of detailed history and clinical examination.
- Final diagnosis was made after investigations like blood, USG, X-ray, CT Scan or MRI (if necessary)
- Histopathological diagnosis was made after FNAC or HPE report
- A written and informed consent was taken from the patient.
- Data was analyzed as per aims and objectives and observations was tabulated using appropriate statistical analysis.

Total of 30 cases were found during our duration of study to be having lateral neck swelling. Swellings which were defined to only posterior triangle were taken. The patients who were having recurrence were excluded from the study.

Clinico-pathological correlation was done and incidence of different lateral neck swellings was found.

RESULTS

In the present study of total 30 patients who were having lateral- posterior triangle neck swelling was observed and evaluated. In the present study of 30 patients 19 patients were female and 11 patients were male. Total of 63.3% of patients were female and rest of the 36.6% patients were male. 2 patients were of paediatric age group and both were females.

In the present study group of 30 patients we found 10 patients to be having Lymphadenitis which includes both tuberculous and non-tuberculous, 8 patients to be having lipoma, 4 patients to be having neck secondaries, 2 patients of cystic hygroma and 6 nonspecific causes like cavernous hemangioma, Madelung disease, Kikuchi Fujimoto disease

Further all the patients were thoroughly examined and the results are as followed.

Table 1: Clinical diagnosis of cases in study group.

Clinical diagnosis	No of cases	Percentage %
Lymphadenitis	10	33.3
Lipoma	08	26.7
Secondaries in neck	04	13.3
Cystic hygroma	02	6.6
Nonspecific	06	20
Cavernous hemangioma	03	
Madelung disease	02	
Kikuchi Fujimoto disease	01	
Total	30	100

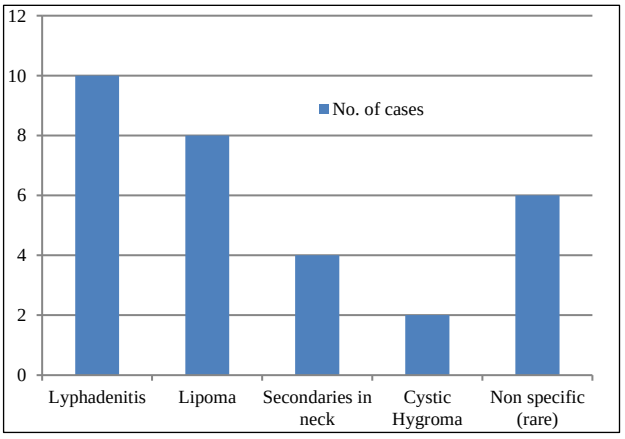

Figure 1: Clinical diagnosis wise distribution of study group.

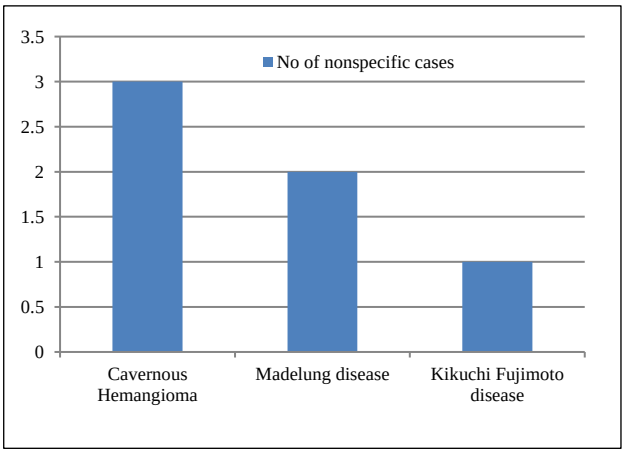

Figure 2: Nonspecific swellings.

Total 33.3% patients were having lymphadenitis, 26.7% patients were having lipoma, 13.3% patients were having neck secondaries, 6.6% patients had cystic hygroma, 20% patients had nonspecific causes like cavernous hemangioma, Madeling disease and Kikuchi Fujimoto disease.

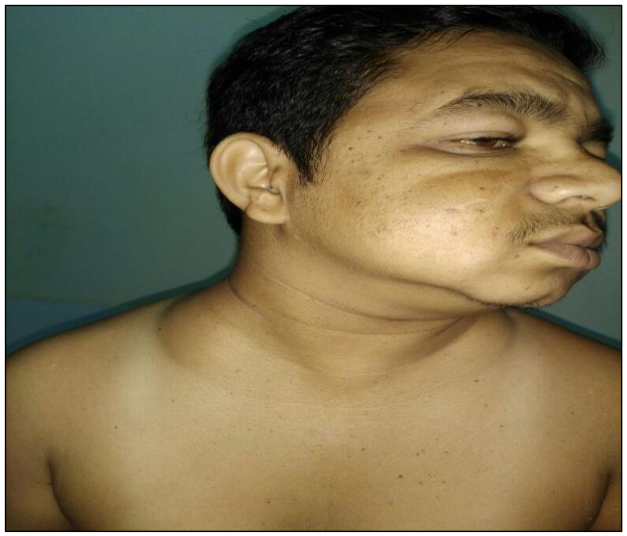

Figure 3: Madelung's disease.

Further confirmation was made with histopathological evaluation of the excised swelling. The cases were initially sent for FNAC and which were confirmed after excisional HPE. The cases of Kikuchi Fujimoto were showing lymphadenitis on initial FNAC but it was confirmed after HPE. The cases of Madelung disease were showing on lipomatous changes on FNAC but we confirmed it n HPE and also with radiological co-relation. Which are as follow:

Table 2: Histopathological correlation.

Final diagnosis	No. of cases	Percentage
Reactive Lymphadenitis	06	20
Tuberculous Lymphadenitis	04	13.3
Lipoma	08	26.6
Mets from CA oral cavity (squamous cell CA)	02	6.6
Lateral aberrant thyroid of papillary CA	02	6.6
Cystic Hygroma	02	6.6
Cavernous Hemangioma	03	10
Madelung's disease	02	6.6
Kikuchi Fujimoto disease	01	3.3
Total	30	100

Incidence after histological co-relation

Further after doing histological correlation incidence of reactive lymphadenitis was 20%, tuberculous lymphadenitis was 13.3%, lipoma was 26.6%, metastatic carcinoma was 6.6%, lateral aberrant thyroid of papillary CA was 6.6%, cystic hygroma was 6.6%, cavernous hygroma was 10%, Madelung's disease was 6.6%, Kikuchi Fujimoto disease was 3.3%.

DISCUSSION

The study of 30 cases was conducted in Dr. D. Y. Patil Medical College and Hospital, Pune. In the present study, various differential diagnosis of posterior triangle neck swelling was made, out of which incidence of various common neck swellings were made. The most common swelling of posterior triangle was found to be lymphadenitis followed by lipoma, neck secondaries and Cystic Hygroma. We also found some of the rare lateral neck swellings involving the posterior triangle like cavernous hemangioma, Madelung's disease and Kikuchi Fujimoto disease.

Madelung's disease is a rare disease of undetermined cause characterized by asymmetrical deposits of painless, diffuse, subcutaneous adipose tissue around the neck associated with chronic alcoholics, DM, gout, hypothyroidism and mitochondrial diseases.[8]

Kikuchi Fujimoto disease (KFD) is a rare, self-limiting disorder that typically affects the cervical lymph nodes. It was first noted in Japan. Associated with necrotizing lymphadenitis.[9]

CONCLUSION

In the present study group total 30 cases were thoroughly studied and clinic-pathological co-relation was done. 63.3% cases were females and 36.6% cases were males. Out of 30 cases in our study group 20% cases were found to have reactive lymphadenitis, 13.3% cases were found to have tuberculous lymphadenitis, 26.6% cases were found to have lipoma, 6.6% cases were having metastatic deposit from carcinoma oral cavity, 6.6% cases were having lateral aberrant thyroid arising from papillary carcinoma of thyroid. 6.6% cases were having cystic hygroma, 10% cases were having cavernous hemangioma, 6.6% cases were diagnosed to be having Madelung's disease and only 1 case that is 3.3% of the total study group is having Kikuchi Fujimoto disease.

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Ethical approval: The study was approved by the institutional ethics committee

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