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Original Research Paper

General Surgery

A CLINICOPATHOLOGICAL STUDY ON CERVICAL LYMPHADENOPATHY

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ABSTRACT At the present situation Accurate Diagnosis of Cervical Lymphapenopathy is often a challenge to describe the common cause leading to cervical lymphadenopathy presented to general surgery depaetment and evaluate the clinical history examination and laboratory finding in the department of general surgery kims amalapuram medical collage research center.

KEYWORDS : Cervical Lymphapenopathy, General surgery, Diagnosis, Accurate, Clinical history

INTRODUCTION

Cervical lymphadenopathy is a frequently encountered clinical phenomenon characterised by the enlargement or inflammation of lymph nodes located in the neck region. Lymph nodes are diminutive, kidney-shaped anatomical entities that constitute an integral component of the lymphatic system, an intricate network of conduits and organs responsible for the conveyance and filtration of lymph, a fluid encompassing white blood cells, proteins, and several other constituents. The lymph nodes are also involved in the processes of immunity, inflammation, and tissue homeostasis. Cervical lymphadenopathy can arise from a variety of sources, exhibiting a wide spectrum of characteristics, including both benign and malignant aetiologies, viral and non-infectious origins, as well as localised and systemic manifestations. Cervical lymphadenopathy can arise from various aetiologies, including tuberculosis, lymphoma, leukaemia, metastatic malignancies, viral infections, autoimmune disorders, and adverse drug reactions. The accurate identification of cervical lymphadenopathy necessitates a comprehensive assessment encompassing a thorough medical history, meticulous physical examination, and pertinent diagnostic procedures, including blood analyses, imaging modalities, and biopsy. The management of cervical lymphadenopathy is contingent upon the aetiology and the extent of the ailment.

Lymphadenopathy is a frequently encountered clinical manifestation. It can potentially present as either a main or subsequent manifestation of several disorders.

Lymphadenopathy is distinguished by deviations in the size and characteristics of the lymph nodes, which arise from the infiltration or spread of either inflammatory cells or neoplastic cells within the lymph node.

Cervical lymphadenopathy might present as a challenging issue in the field of surgical practise. The evaluation of cervical lymphadenopathy is often complex, since it is further complicated by the presence of other differential diagnoses that exhibit similar characteristics. These encompass both inflammatory and neoplastic conditions.

Lymph nodes are present along the lymphatic channels and serve as filters for the passage of inflammatory cells and neoplastic cells. The human body contains roughly 800 lymph nodes, with approximately 300 of them situated in the neck region.

Various approaches, such as clinical evaluation, aspiration cytology, and open biopsy, can be utilised for this objective. Although every procedure has its own set of pros and problems, open biopsy with histological evaluation is now considered the most reliable and widely accepted technique for diagnosing cervical lymphadenopathy.

Lymph node biopsies are considered the most effective diagnostic technique. Nevertheless, the microscopic study of diseased lymph nodes presents significant challenges. A higher frequency of mistakes is observed in lymph node biopsies when compared to other organs inside the human body1.Tuberculosis remains a frequent disease in India, despite its relative rarity in Western nations. Despite the existence of effective chemotherapy for the disease, the diagnosis and management of it provide significant challenges. The prevailing aetiologies of widespread lymphadenopathy include Tuberculosis and Hodgkin's disease.The occurrence of painless lymphadenopathy in the superficial lymph nodes, which develops gradually, is a frequently observed manifestation of Tuberculosis. Head and neck cancers constitute around 2.8% of all newly diagnosed malignancies. The incidence of cervical lymph node metastases originating from an unidentified source tumour comprises approximately 3 to 5% of all cases.

One of the drawbacks associated with open biopsy is the requirement for anaesthesia, in addition to extended reporting durations. On the contrary, fine needle aspiration cytology can be performed as an outpatient technique, obviating the requirement for anaesthesia, and yielding prompt findings in contrast to open biopsy.

Case Study

The present study posits that cervical lymphadenopathy is a prevalent and consequential illness necessitating a methodical and all-encompassing approach for its diagnosis and treatment. The research will employ a descriptive and analytical research approach, utilising a sample of 75patients who meet the specified inclusion and exclusion criteria. The data will be gathered with a standardised proforma and thereafter subjected to analysis employing suitable statistical methodologies.

The study holds importance as it aims to contribute useful insights into the clinicopathological characteristics of cervical lymphadenopathy within the context of a tertiary care institution. This study will additionally provide a valuable contribution to the current body of literature pertaining to the subject matter, hence enhancing clinical practise and the quality of patient care. The study will additionally ascertain the domains necessitating further investigation and opportunities for enhancement within the realm of cervical lymphadenopathy.

MATERIALS AND METHODS:

- Selected inpatients and outpatients from Konasee mainstute of medical science and research centre Amalapuram 533201
- Patients were selected randomly
- 75 consecutive cases were included in the study.

Inclusion Criteria:

- Patients of age greater than 12 years and both genders presenting to the General Surgery O.P.D with neck swelling for more than 3 weeks.
- Patients whose diagnosis has been done by USG (ultrasonography)/C.T scan neck are also included for thorough clinical evaluation and FNAC/Biopsy of the neck node.

Exclusion Criteria:

- Patients coming with acute attack of lymphadenitis of less than 3 weeks.
- Patients having underlying any bleeding disorders or patients with cardiorespiratory failure.
- The majority of patients were from Amalapuram& surrounding areas.
- The clinical data consists of that collected during the study period- May 2022 to May 2024
- Detailed case history was taken as per the proforma
- Clinical examination of the patient was done
- Investigations - CBC, viral markers, Coagulation profile, FNAC from cervical lymph nodes Chest X-Ray, ENT opinion (selected cases) CECT (selected cases)

CONCLUSIONS

In this clinicopathological study on cervical lympha denopathy conducted at Konaseema Institute of Medical Science and Research Centre, Amalapuram, between May 2022 and May 2024, a total of 75 consecutive cases were included.

The study aimed to investigate the clinical characteristics and underlying causes of cervical lymphadenopathy in patients aged 12 years and above who presented with neck swelling for more than 3 weeks. Patients whose diagnosis was confirmed through ultrasound or CT scan of the neck and further evaluation through FNAC/Biopsy of the neck nodes were included.

The study found that the prevalence of tuberculosis infection as the primary cause of cervical lymphadenopathy ranged from 44% to 67% in different investigations, highlighting its continued significance in the region. Non-neoplastic causes were consistently more prevalent than neoplastic causes, emphasizing the importance of considering non-neoplastic etiologies in the evaluation of cervical lymphadenopathy.

In terms of demographics, the studies indicated that males had a higher prevalence of cervical lymphadenopathy compared to females, and the age group between 21 and 40 years was the most affected across all research. The most common presenting complaint was neck swelling, often accompanied by symptoms such as fever and weight loss.

The patterns of lymph node involvement varied depending on the underlying cause, with tuberculosis affecting specific clusters of lymph nodes, and lymphomas involving multiple lymph node levels.

The absence of a prior exposure history was noted in patients with cervical tuberculosis, suggesting that the disease can develop even in the absence of known exposure.

Regarding diagnostic methodologies, Fine Needle Aspiration Cytology (FNAC) emerged as a valuable diagnostic tool, being less invasive than other methods. Histology was also highlighted as important for providing a definitive diagnosis.

In summary, the study underscores the importance of a comprehensive examination and a multidisciplinary approach when dealing with cervical lymphadenopathy due to the diverse etiologies and clinical presentations associated with this condition. It also emphasizes the prevalence of tuberculosis as a primary cause and the significance of diagnostic procedures such as FNAC and histology in the evaluation of cervical lymphadenopathy.

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