



TO EVALUATE THE ROLE OF FINE NEEDLE ASPIRATION CYTOLOGY IN THE INITIAL ASSESSMENT AND THE CLINICAL MANAGEMENT OF PATIENTS OF PALPABLE MASS LESIONS IN ANTERIOR TRIANGLE OF NECK WITH THE RESPECT TO THE SEX & SITE.

Dr. Akanksha Jain¹ (Demonstrator) & Dr. Garima Dhamnani² (Senior Resident)

¹Bundelkhand Medical College, Sagar

²Sri Aurbindo Medical College and P.G. Institute, Indore

Conflicts of Interest: Nil

Corresponding author: Dr. Garima Dhamnani

Abstract:

(FNAC) is a simple, rapid and cost effective method to sample superficial masses found in the head and neck. It causes minimal trauma to the patient and involve virtually no risk of complications. Aim of the study is to determine the prevalence of anterior triangle neck lesions and evaluate the role of FNAC with the respect to the age, sex & site.

Result: Gender wise distribution of anterior triangle neck mass lesions In the present study, which comprised of 500 patients, 290 were males & 210 were females.

Organ wise distribution of cases of anterior triangle neck masses. In the present study, out of 500 patients, maximum numbers of cases were from lymph nodes consisting of 344 cases, 123 were thyroid lesions, 33 were others from submandibular salivary gland, soft tissue & subcutaneous tissue of anterior triangle neck masses.

Distribution of miscellaneous lesions Amongst miscellaneous lesions of anterior triangle neck mass, lipoma was most common followed by epidermal inclusion cyst.

Conclusion: Fine needle aspiration cytology is a simple, rapid & cost effective method to diagnose different types of neck swellings. Lympha - denopathy is most familiar cause of anterior triangle neck mass. Tuberculous lymphadenitis is the most common diagnosis followed by reactive hyperplasia of lymph node. It is also a diagnostic test for differentiating inflammatory from malignant lesions & it is helpful to avoid unnecessary surgeries & in general clinical management such as antibiotic treatment.

Keywords: FNAC, Anterior triangle neck masses, Tubercular lymphadenitis, Thyroid lesions.

Introduction

FNAC is particularly helpful in the examination of neck masses and neck nodules because biopsy of neck swelling should be avoided unless all other diagnostic modalities have failed to establish a diagnosis.[1] FNAC does not give the same morphological detail as histology but it can provide cells from the entire lesion as many passes through the lesion can be made while aspirating.[2]

FNAC of thyroid for investigation of goiter eliminate the need for diagnostic thyroidectomy. Fine Needle Aspiration Cytology not only

confirms the presence of metastatic disease, but also provides clues regarding the nature and origin of the primary tumour.

Material & Method

The study consists of 500 patients with palpable anterior triangle neck masses coming to the Department of Pathology at Bundelkhand Medical College, Sagar. The period of study was one year.

Inclusion criteria-

□ All patients with palpable anterior triangle neck masses of both sexes and

all age group.

Exclusion criteria-

- Suspected masses of vascular origin / pulsatile swelling.
- Swelling in other parts of neck.
- Patients with bleeding disorders.

Palpation of the swelling and Planning of the Procedure: This palpation governs the placement of the needle tip. In small lesions (1 cm in diameter), it is generally desirable to aim for the center of the lesion. In very large lesions (>5 cm

in diameter), there may be central necrosis, and thus the periphery is more likely to yield diagnostic material. In medium-sized lesions (2 to 4 cm in diameter), it is often advantageous to collect samples from two different areas: one to the side of the center, and another one in the mirror-image position of the previous aspiration.

Results

A total of 500 Fine Needle Aspiration Cytology done from lesions in the anterior triangle of neck was included in this study. Histopathological correlation was available in 36 patients.

Table 01: Gender Distribution of Anterior triangle neck mass lesions

Gender	Number of patients	Percentage (%)
Females	290	58
Males	210	42
Total	500	100

Gender wise distribution of anterior triangle neck mass lesions In the present study, which comprised of 500 patients, 290 were males & 210 were females.

Table: 02 Organ wise distribution of lesions

Organ	No. of Cases	Percentage (%)
Lymph Node	344	68.8
Thyroid	123	24.6
Others	33	6.6
Total	500	100

Organ wise distribution of cases of anterior triangle neck masses. In the present study, out of 500 patients, maximum numbers of cases were from lymph nodes consisting of 344 cases, 123 were thyroid lesions, 33 were others from submandibular salivary gland, soft tissue & subcutaneous tissue of anterior triangle neck masses.

Table 03: MISCELLANEOUS LESIONS

Lesion	No. of Cases	Percentage (%)
Pleomorphic adenoma	06	9
Epidermal Inclusion Cyst	20	30
Lipoma	26	39
Abscess	05	7
Cystic lesion	10	15
Total	67	100

Distribution of miscellaneous lesions Amongst miscellaneous lesions of anterior triangle neck mass, lipoma was most common followed by epidermal inclusion cyst.

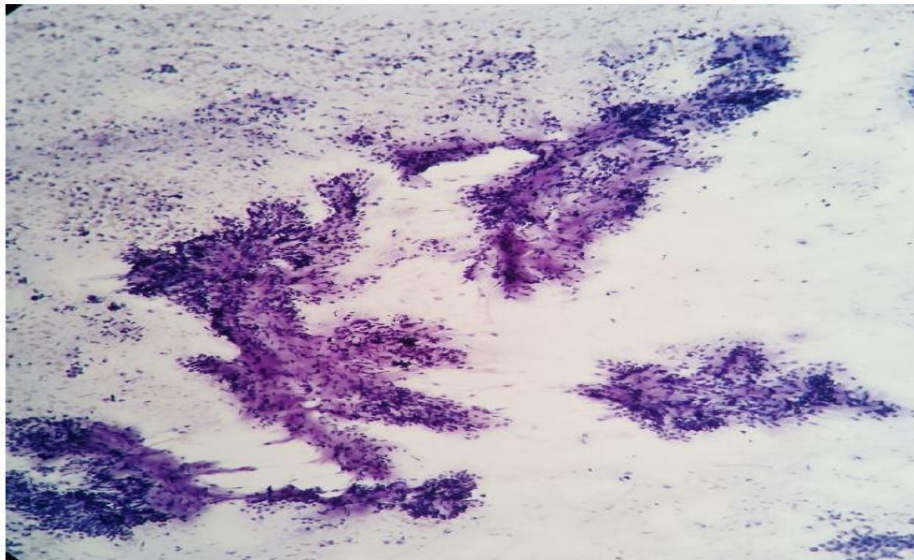


Figure 01: Pleomorphic adenoma (Low power view)

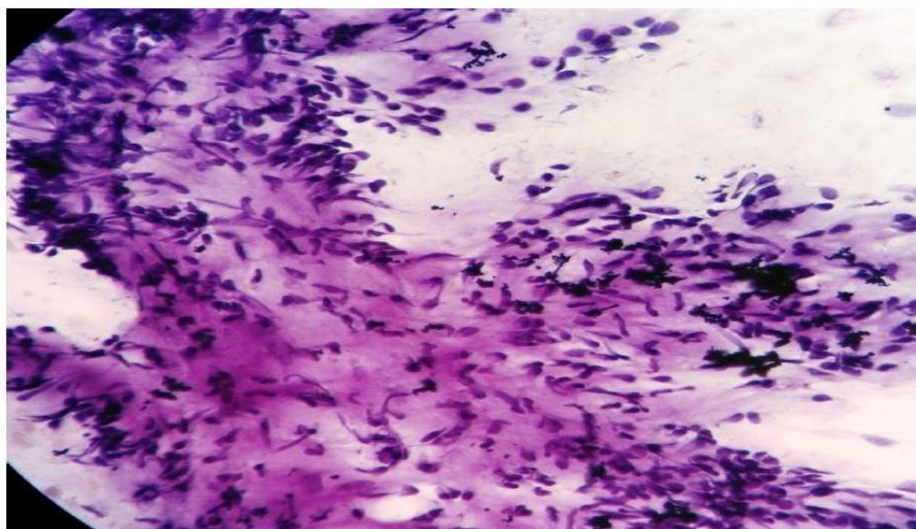


Figure 02: Pleomorphic adenoma (High power view)

Discussion

Fine Needle Aspiration Cytology is a procedure where by small amount of tissue or cells are aspirated from a pathological lesion with the help of 20ml disposable syringe attached to 22 or 24 gauge needle. The procedure also provides the information about the next best step in clinical workup of patients. This procedure can easily distinguish between non-neoplastic and neoplastic conditions and can diagnose conditions like tuberculous and reactive lymph node from malignant and metastasis thus preventing unnecessary surgery.^[3,4]

The reliability of the method has been shown in several studies for neck masses.^[5-8] The result of cytology of aspirated enlarged lymph nodes indicates that inflammatory lymphadenopathy constitutes a significant proportion of findings. It is also proved that cytological examination may not only help to distinguish between inflammatory and malignant types, but may also suggest the nature of the inflammatory process.

Conclusion

Fine needle aspiration cytology is a simple, rapid & cost effective method to diagnose different types of neck swellings. Lymphadenopathy is most familiar cause of anterior triangle neck mass. Tuberculous lymphadenitis is the most common diagnosis followed by reactive hyperplasia of lymph node. It is also a diagnostic test for differentiating inflammatory from malignant lesions & it is helpful to avoid unnecessary surgeries & in general clinical management such as antibiotic treatment.

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