Original Research Paper Medical Science

Fine Needle Aspiration Cytology of Lymphnodes in Head and Neck Region

DR.G BALESWARI ASSOCIATE PROFESSOR OF PATHOLOGY,KURNOOL MEDICAL COLLEGE,KURNOOL,ANDHRAPRADESH,518002

DR.G.REVATHI ASSISTANT PROFESSOR OF PATHOLOGY,KMC KURNOOL,AP

DR.TAMIL ARASI PROFESSOR AND HOD OF PATHOLOGY,KMC,KURNOOL,AP

ABSTRACT

OBJECTIVE: FNAC is the first line screening tool for evaluation of lymphnode lesions.

It helps in early detection and proper management of lymph node lesions & helps to reduce unwanted surgeries.

Materials & methods : one year study of lymphnodal swellings affecting head & neck region was under taken in the department of pathology , Kurnool medical college , Kurnool, from January 2014 to dec 2014.

RESULTS: in the present study a total number of 130 cases of head & neck swellings are analysed by FNAC. In most of the cases biopsy was not taken & the FNAC diagnosis was correlated with clinical impression.

Out of 130 cases, reported on cytology, 41 were secondary reposits, 42 were tuberculosis, 9 were reactive hyperplasia, 36 were non- specific lymphadenitis, 1 case was sinus histiocytosis & 1 case was hodgkin' s lymphoma.

CONCLUSION: FNAC is a safe , quick & reliable inexpensive procedure with high diagnostic accuracy in cases of cervical lymphadenopathy.

KEYWORDS : FNAC, LYMPHNODES, HEAD AND NECK.

INTRODUCTION : fine needle aspiration cytology (FNAC) is also known as fine needle aspiration biopsy. (FNAB) & aspiration biopsy cytology. (ABC).

It is a miniature biopsy performed using a fine needle (22G OR 23 G)

FNAC of palpable lymphnodes is useful in the clinical practice to establich the nature of primary lesion & staging of the disease. So that appropriate therapeutic measures are planned & it reduce the number of surgeries on the lymph nodes.

MATERIALS AND METHODS

The present study is a one year prospective study under taken in the dept of pathology, Kurnool medical college , Kurnool, during the period of January 2014 to December 20014.

The study comprised 130 cases presented with head & neck lymphnodal swellings. FNAC smears were fixed in 95% ethyl alcohol and stained with H & E & GIEMSA stain.

The cytological report of lymphnodal aspiration was given as shown below

Inadequate material
Reactive node
Inflammatory pathology
Non- specific inflammation
Specific inflammation
Malignant lymphoma
Hodgkin, disease
Non- Hodgkin' s lymphoma
Hematolymphoid malignancy
Metastatic tumors
Metastatic carcinoma
Metastatic sarcoma
Metastatic melanoma.

RESULTS:

In the present study a total number of 130 cases of head & neck lymphnodal swellings are analysed by fine needle aspiration cytology technique.

LESION WISE DISTRIBUTION OF LYMPHNODAL FNACS (130 CASES)

LESION	NO. OF FNAC cases	Percentage of cases
Secondary deposit	41	31.5%
Tuberculosis	42	32%
Reactive hyperplasia	9	7.5%
Non- specific lymphadenitis	36	27.2%
Sinus histiocytosis	1	0.9%
Hodgkin' s lymphoma	1	0.9%

The table revealed that tuberculosis is the most common lesion in the present study. i.e 42 cases (32 %) . the second most common lesion noticed was secondary deposit i.e 41 (31.5%) cases. Non- specific lymphadenitis accounted as 27.2 % (36 cases)

A case hodgkin's lymphoma was documented . an interesting case of sinus histiocytosis with massive lymphadenopathy in a child of 6 yrs is diagnosed.

SEX WISE DISTRIBUTION OF LESIONS

LESION	MALE	FEMALE
NON- SPECIFIC LYMPHADENITIS	18	14
REACTIVE HYPERPLASIA	5	4
TUBERCULOUS LYMPHADENITIS	13	30
SECONDARY DEPOSIT	34	10
SINUS HISTIOCYTOSIS	I	-
HODGKIN'S LYMPHOMA	-	1
TOTAL NO. OF CASES	71	59

IN the present study of 130 cases of lymph nodal swellings of head & neck region the incidence sex wise revealed almost equal distribution. But in tuberculous lymphadenitis there is marked increase in incidence in females. In secondary deposits the incidence is 3 times common in males than in females.

AGE WISE DISTRIBUTION OF LESIONS

Among the total No. of 130 Cases noticed, the highest incidence was noticed in 3rd decade. The next commonest age groups are 1st, 2nd &

6th decades. Only 2 cases were reported in 8th decade.

Lesion	0-10yrs	11-20yrs	21-30yrs	31-40yrs	41-50yrs	51-60 yrs	61-70yrs	71-80yrs
Non-specific lymphadenitis	8	4	11	4	1	2	2	-
Tuberculosis	4	19	10	3	4	1	1	1
reactive hyperplasia	4	-	2	-	-	-	-	-
4.secondary deposits	-	1	6	7	5	15	11	1
5.sinus histiocytosis	1	-	-	-	-	-	-	-
hodgkin's lymphoma	-	-	-	-	1	-	-	-
Total (130)	17	24	29	16	11	18	14	2

DISCUSSION

COMPARATIVE STUDY OF INCIDENCE WITH OTHER AUTHORS

NAME	YEAR	NO. OF CASES	CHRONIC NON-SPECIFIC INFLAMMATION	TUBERCULOSIS	REACTIVE HYPERPLASIA	LYMPHOMA	SECONDARY DEPOSIT
	I972	145	22.2	66.6	_	6.2	5.2
a.k. patra	1983	103	5.8	37.8	_	1.9	14.5
Tilde et al	1983	340	37	100	_	73	130
Singh et al	1986	100	24	30	_	4	26
Anuradha et al	1989	50	10	11	_	5	4
ANJALIDAS GUPTA et al	1994	180	27	114	_	3	24
PRESENT STUDY	2009	130	36	42	_	1	4

INCIDENCE OF VARIOUS PATTERNS IN FNAC OF TUBERCULOUS LYMPHADENITIS

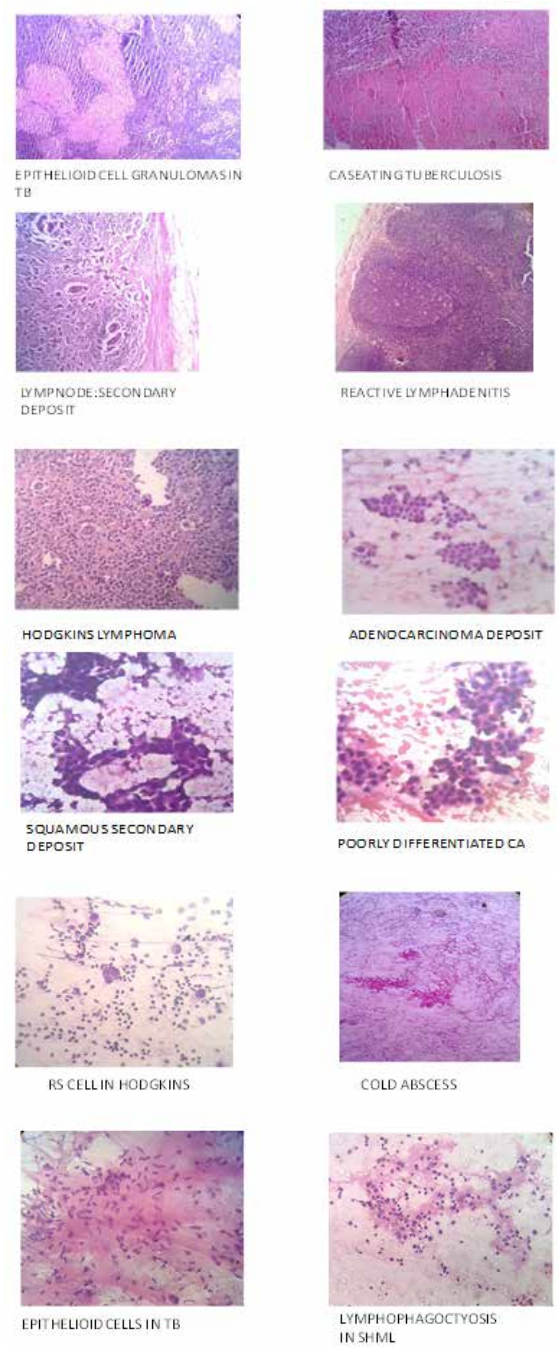
Various patterns	Cases	Percentage
1.Epitheloid cells + giant cells+ necrotic material	9	21.4%
2. epitheloid cells	17	40.5%
3.epitheloid cells + necrotic material	10	23.8%
4.cold abscess	2	4.8%
5.epitheloid cells + giant cells	4	9.5%

COMPARISION OF FNAC WITH HISTOPATHOLOGICAL RESULTS

Lesion	No. of cases	No of cases with istopathological correlation
1.secondary deposit	41	41
2.tuberculosis	42	32
3.reactive hyperplasia	9	9
4.non- specific lymphadenitis	36	20
5.sinus histiocytosis	1	1
6.hodgkin's lymphoma	1	1

CONCLUSION

FNAC of lymphnodal swellings is a simple, reliable and cost effective techinique without complications. The sensitivity ,specificity & accuracy of FNAC of lymphnodes is high when compared to other diagnostic methods. FNAC is useful in the clinical practice to establish the nature of primary lesion & staging of the disease, so that appropriate therapeutic measures are planned & it reduce the number of surgeries on lymphnodes.



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