

2005 -

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-

*

103

.2001

1998

7

30

66

*PNET

PNET

*

:

(PRIMITIVE NEUROECTODERMAL TUMOR) PNET

Thoracic Small Round Cell Tumors

Lina Al Haffar^{*}

Abstract

There is a group of tumors share the same nuclear size <3 red blood cells and can be differentiated only by immunostaining.

All thoracic small cells tumors diagnosed between 1998-2001 during 4 years, at AL ASSAD UNIVERSITY HOSPITAL – DAMASCUS UNIVERSITY.

There were 103 cases (66 cases of small cell carcinoma, 30 malignant lymphoma, and 7 cases of PNET).

We performed the immunostaining in 31 cases of small cell carcinoma ,all of them were malignant lymphomas and the 7 cases of PNET*.

PNET cannot be diagnosed without immunostaining.

We must demand the immunostaining if there is a doubt (clinical or pathological) about the real nature of a small cell tumor.

Key Words: Small Round Cell Tumor SRCT , Small Cell Lung Cancer SCLC, Lymphoma ,ES/PNE * (Ewing's Sarcoma / Primitive Neuroectodermal Tumor).

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(2)

(3)

3

: _____ -

SRCT

- 1

%80-40

(4)PMBL

(1)

-2

(5)

: _____

-3

_____ RHABDOMYOSARCOMA

(1)

_____ EXTRASKELETAL EWING'S
SARCOMA/

PNET

PNET/ESE (Primitive Neuroectodermal Tumor)

;(8,9)

1979 ASKIN
ASKIN TUMOR Small Cell Lung Cancer Sc
()

- Peritheliomatous - MOLDING
- STREAKING
;(7 6)

MATERIALS & METHODS

103 - :MBCL

Lel -
(Lympho-Epithelial Lesion)

1998 -
.2001 -

71 - 66 -
 . %69 33
 - .PNET 7
 (10) (2) :1 -
 :2 -
 -
)
 .((1) -
 (1)

103

			ES/PNET
1998	11	8	2
1999	12	3	2
2000	20	8	-
2001	23	11	3
	66	30	7

(2) _____

(10)

				ES /PNET *
LCA **	+(>90%)	-	-	-
EMA ***	-	+(>90%)	-	-
CHROMOGRANIN A	-	+(>80%)	+(30%)	-
SYNAPTOPHYSIN	-	-	-	-
DESMIN	-	-	+(>55%)	-
ACTIN	-	-	+(>80%)	-
VIMENTINE	-	-	+(>60%)	+(>90%)
CD99	-	-	-	+(>90%)

:ESE *

: LCA **

:EMA ***

A,NSE,SYN,LCA

RESULTS

: _____

30 : _____

66

15 :

8

5

34

2

Ema,Ck,Chromogranine :

: PNET /

-65

7

%70

DISCUSSION

(5)

:

36

76 27

58

1\10

(5)

(1)

% 10

(5) %5

3

Intermediat

2001 1998

0 %30

%10

3

(5) (%25-20

)

OAT CELLS

:

,Synaptophysin

1988

LCA,CD20,CD3,CD15,CD30

IAFSLC (International Association
(11) For Study of Lung Cancer)

(24)

:_____

:

.(1)

)

50

(14) (REAL

%

5

60 18

lymphoma Ki1

34

ANAPLASTIC

CD30

31

1985

1994

30

(13,15) REAL

(12,13 4)

CD30

NULL

CD3

):

EMA, NSE :

5 .(

) .

.(

25

30

MIC 2 (

CD99)

LCA

(18) DESMIN / ACTIN

7

:PNET

14

(16-17)

CD99

(15)

(19-20)

PNET

WT1

RECOMMENDATIONS

(3+21)

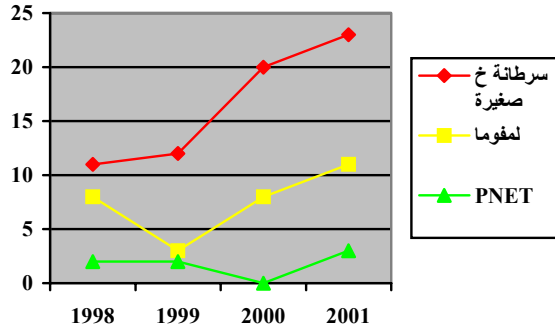
CONCLUSION

- Pnet\Askin

.Tumor

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(1)

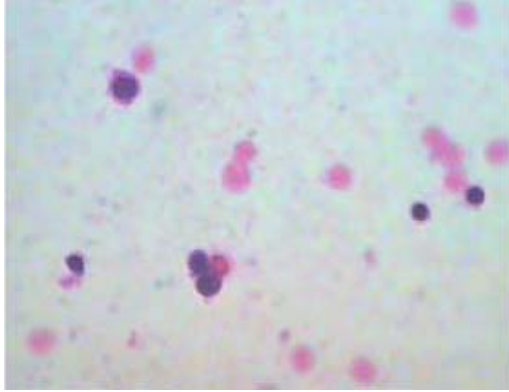
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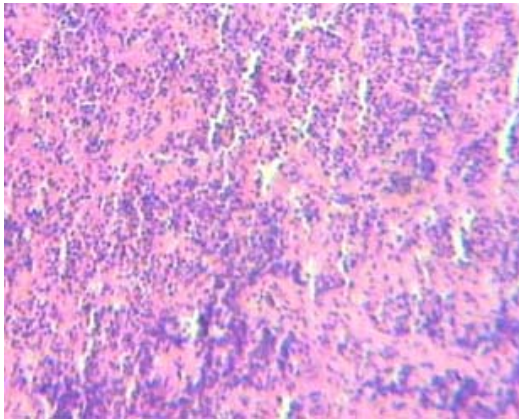
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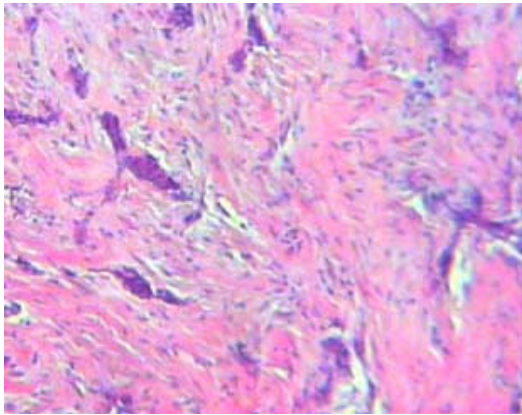
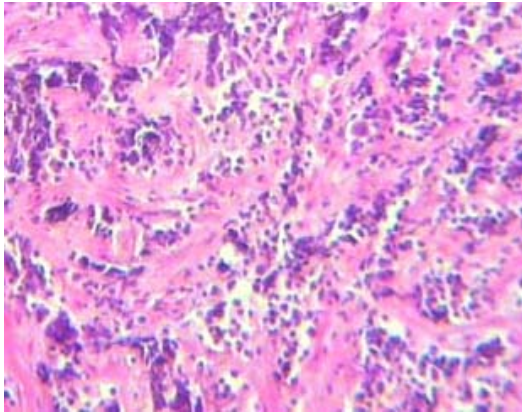
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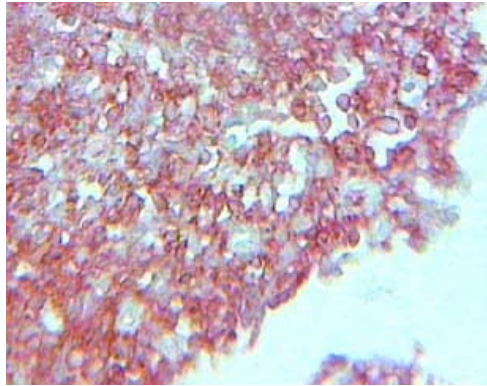
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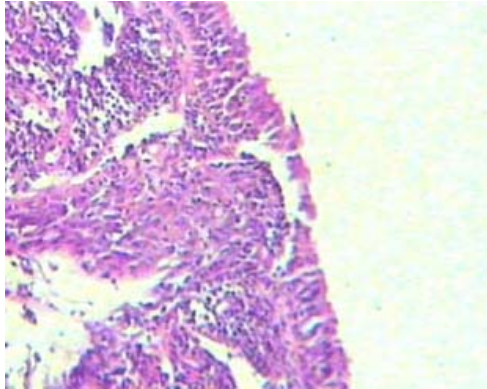




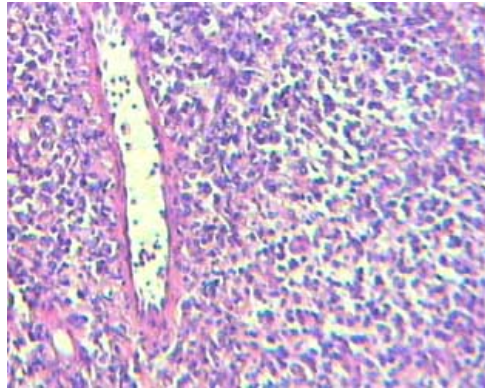
EMA



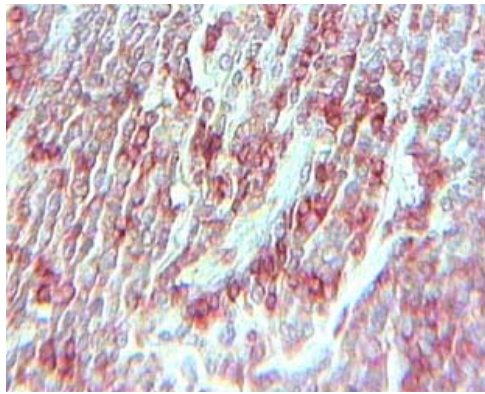
LEL - : -3



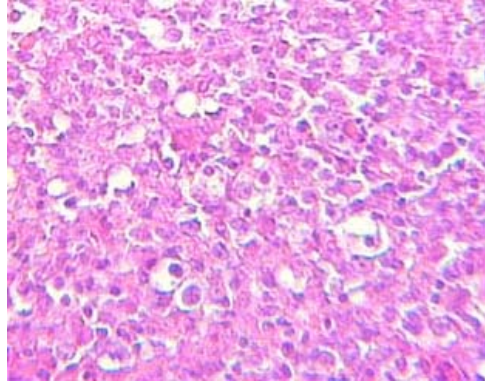
:H&E -



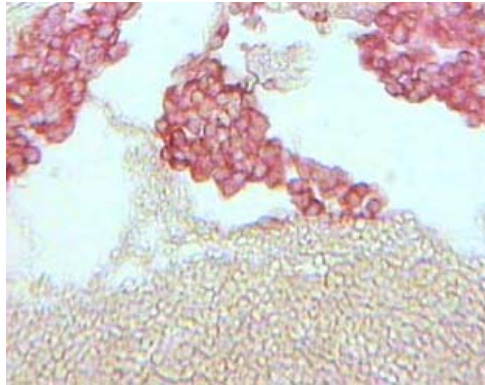
LCA -



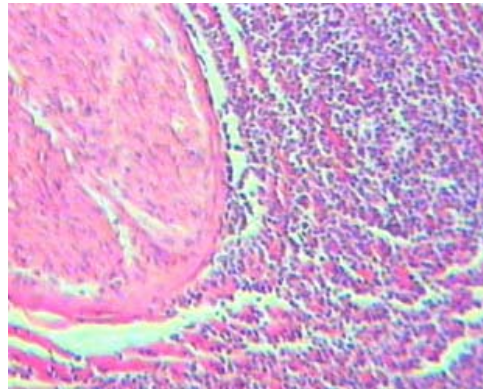
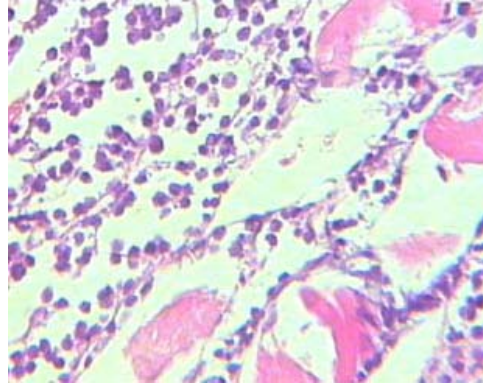
: LDBCL -4
H&E -



CD 20 (B CELLS) -
FNA

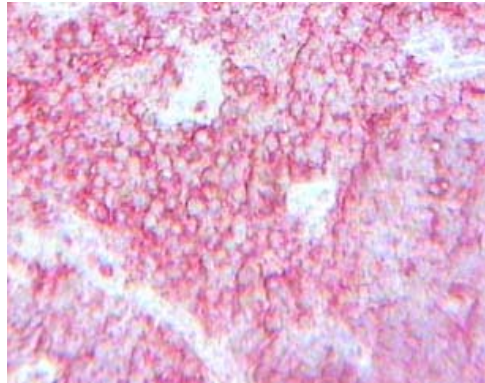


:PNET - 5
.H&E -



.CD99

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References

- 1-Kummar PV.Fine needle aspiration cytologic findings in malignant small cell tumor of the thoracopulmonary region (Askin tumor).Cytol Act 1994 Sep ; 38 (5) 702-6
- 2- O'Sullivan JM,Perlman E,Furman J,Humphery P,Dehner L,Pfeifer J.Visceral Primitive Peripheral Neuroectodermal Tumors:A clinicopathologic and molecular study.Hum Path 2001;32:1109-1115.
- 3-Barnoud R,Sabourin JC,Pasquier D,et al.Immunohistochemical expression of WT1 by desmoplastic small round cell tumor .A comparative study with other Small Round Cell Tumors.American Journal of Surgical Pathology 24(6);830-836,2000.
- 4-Lazzarino M ,Orlandi E,Paulli M: Treatment outcome and pronostic factors for primary mediastinal(thymic) B-cell lymphoma:a multicentric study of 106 patients .J.Clin Oncol 1997 Apr;15(4):1646-53
- 5-Greenlee RT ,Hill –Harmon MB,Murray T: Cancer Statistics, 2001.CA Cancer J Clin 2001;51:15-36
- 6-Rosai J.Ackerman's Surgical Pathology ,Mosby ,Vol 1 , 8th Edit ,1999
- 7-Carter D,Eggleston JC.Tumors of the lower respiratory tract .An atlas of tumor pathology fascicle 17 Armed forces institute of pathology . Washington D.C 1995.
- 8-Dehner LP.Primitive Neuroectodermal Tumor and Ewing's Sarcoma.Am J Surg Pathol 1993;17(1):1-13.
- 9-Shamberger RC,Tarbell NJ,Perez-Atayde AR et al.Malignant small round cell tumor (Ewing's –PNET)of the chest wall in children .J Pediatr Surg 1994 Feb;29(2).179-184.
- 10-Eissa S,Shoman S .Handbook of tumor marker .Khattab Press , Cairo, Egypt ;1995.P78
- 11-Hirsch FR, Matthews MJ,Aisner S,et al :Histopathology classification of small cell lung cancer . Changing concepts and terminology . Cancer 1988 . Sep 1 ; 62(5) : 973-977
- 12-Lister TA,Armitage JO:Non –Hodgkin's lymphoma:In :Abeloff MD,Armitage JO,Lichter AS,Niederhuber JE,eds.Clinical oncology .2nd ed.Philadelphia,Pa:Churchill livingstone;2000:2658-719

-
- 13-Van Besien K,Cabanillas F:Clinical manifestations,staging,and treatment of non-hodgkin lymphoma , In : Hoffman R,Benz E J Jr,Shattil SJ,Furie B,Cohn HJ,Silberstein LE,Mc Glave P,eds.Hematology :Basic principles and practice .3 rd ed.New york,NY,Churchill livingstone;2000:1293-339
- 14-Popat U,Przepiork D,Champlin R:High -dose chemotherapy for relapsed and refractory diffuse large B – cell lymphoma :mediastinal localization predicts for a favorable outcome.J Clin Oncol 1998.Jan;16(1):63-9
- 15-Stein H,Foss HD,Durkop H,et al:CD30(+) Anaplastic large cell lymphoma : a review of its histopathologic,genetic,and clinical features.Blood 2000 Dec 1;96(12):3681-95
- 16- Baumgartner J.F,Omari B,Samuel W.F.Primitive neuroectodermal tumor of the pulmonary hilum in an adult.Ann.Thorac.Surg.2001;72:285-287.
- 17-Takahashi K,Dambara T,Uekusa T,Nukiwa T,Kira S.Massive chest wall tumor diagnosed ace askin tumor .Successful treatment by intensive combined modality therapy in adult .Chest 1993 Jul, 104(1),287-288
- 18-Ravinsky E,Safneck JR,Quinonez G,Yazdi H.Fine Needle Aspiration Biopsy of a small round cell tumor exhibiting both neural and myogenic differentiation:A case report .Acta Cytol 1997;41:1320-1324.
- 19-Sawin R.S,Conrad 3rd E.U,Park J.R,Waldhausen J.H.Preresection chemotherapy improves survival for children with Askin tumors.Arch of Surg .Vol.131 No.8,August 1996
- 20-Veronesi et al .Preoperative chemotherapy is essential for conservative surgery of Askin tumors.3 Thorac Cardiovas Surg .2003;125:428-429.
- 21-Carpentieri DF,Nichols K,Chou PM,Matthews M,Pawel B,Huff D.The expression of WT1 in the differentiation of rhabdomyosarcoma from other pediatric Small Round Blue Cell Tumors .Mod Pathol 2002Oct;15(10):1080-6.

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