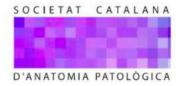
# SEMINARIO DE CASOS DE PATOLOGÍA PEDIÁTRICA CON CORRELACIÓN CITO-HISTOLÓGICA

Dra. Cristina Jou Marta Marginet Anatomía Patológica Hospital Sant Joan de Deu









## CASO CLÍNICO:

Adolescente varón de 16 años con dolor lumbar de tres meses de evolución.

Fiebre en los últimos días.

Astenia.

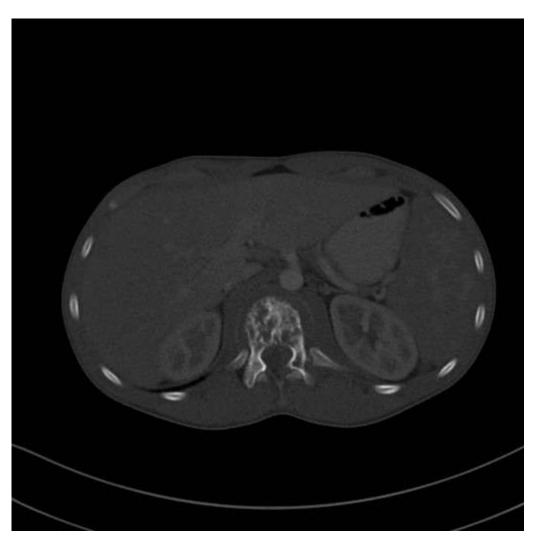
AF: Tía materna Ca tiroides

EF: Neurológica: Fuerza 4/5 en MID con sensibilidad conservada. No adenopatías palpables

PC: Analítica sangre: sin alteraciones.



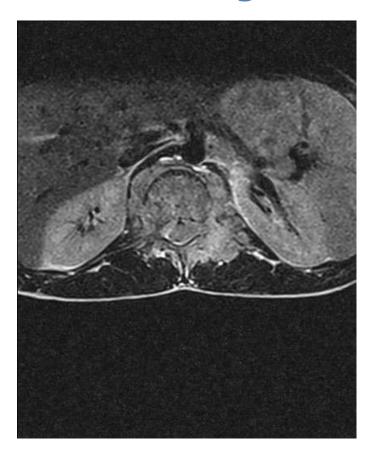
#### Pruebas de imagen:



- Lesión ósea lítica con importante componente de partes blandas centrado en cuerpo vertebral D12.
- Invasión de los agujeros de conjunción D11-D12 y D12-L1 con componente intradural epidural de e importante compresión del saco tecal.
- Lesiones líticas óseas en cuerpos vertebrales D2, D7, D8, D9, D11, D12 y sacro derecho.
- Lesión en hueso iliaco izquierdo y rama iliopubiana izquierda.



#### Pruebas de imagen:

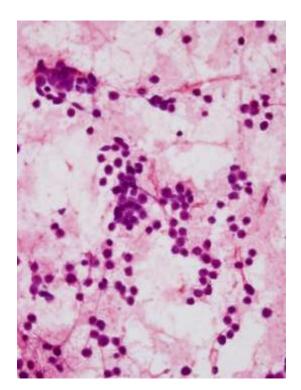


- Lesión ósea lítica con importante componente de partes blandas centrado en D12.
- Invasión de agujeros de conjunción D11-D12 y D12-L1 bilateral con componente intrarraquídeo epidural y con importante compresión del saco tecal.
- Alteración de señal en todos los cuerpos vertebrales, excepto L2 y pelvis.

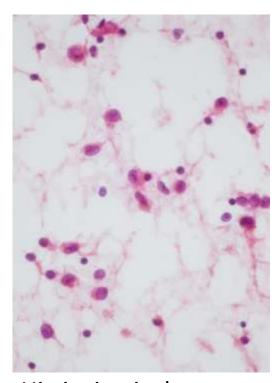
Orientación diagnóstica radiológica: Sarcoma de Ewing



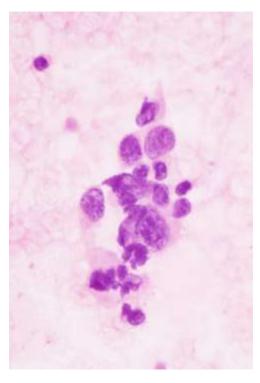
# Diagnóstico diferencial lesión ósea con/sin afectación de partes blandas:



Sarcoma Ewing



Histiocitosis de células de Langerhans



Osteosarcoma





#### Biopsia intraoperatoria:

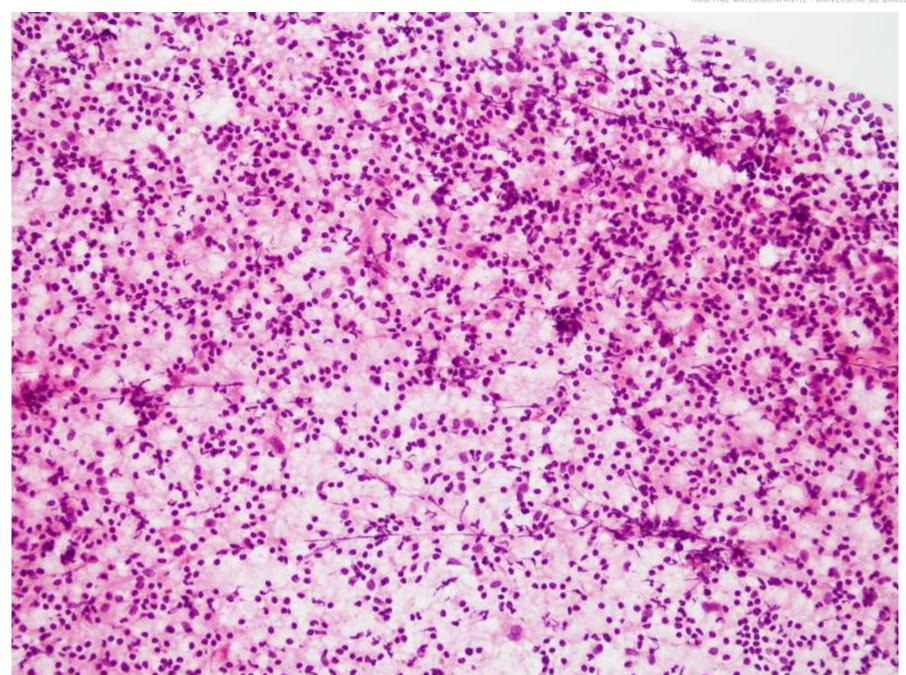
Fragmentos tisulares elásticos y firmes de coloración blanco rosada 3x2'5 cm.

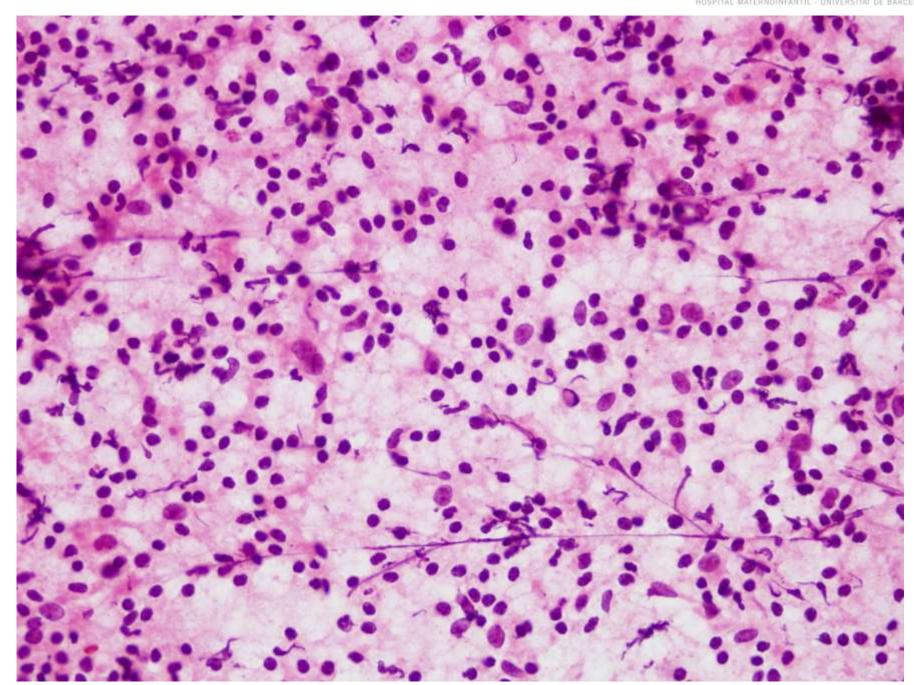


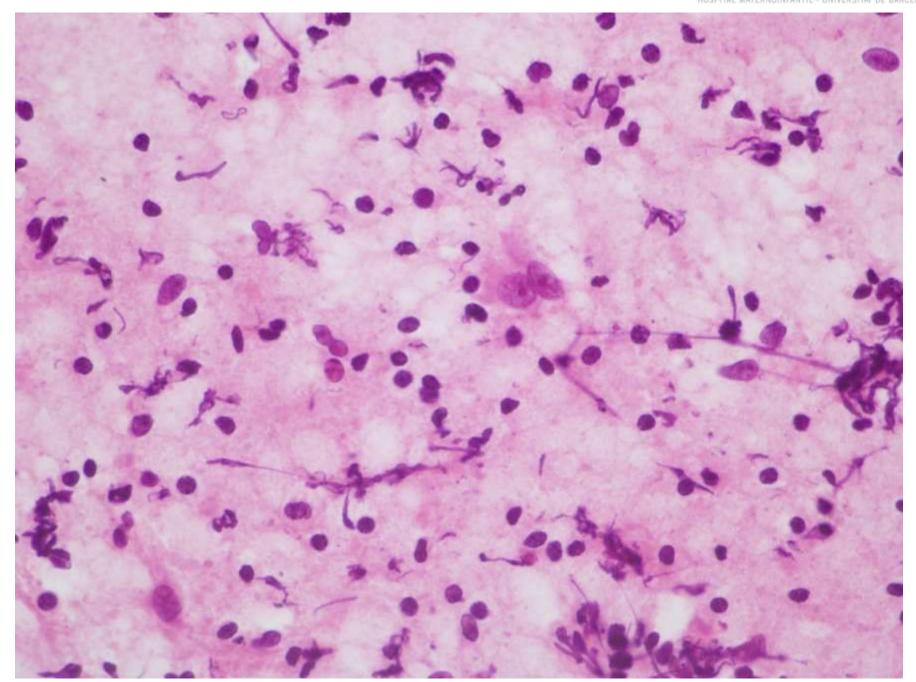


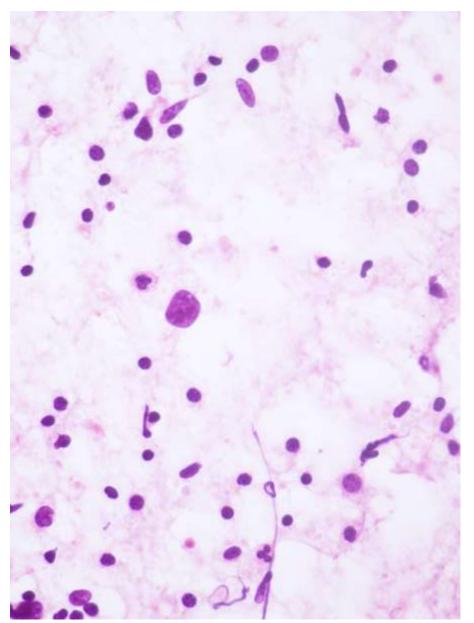


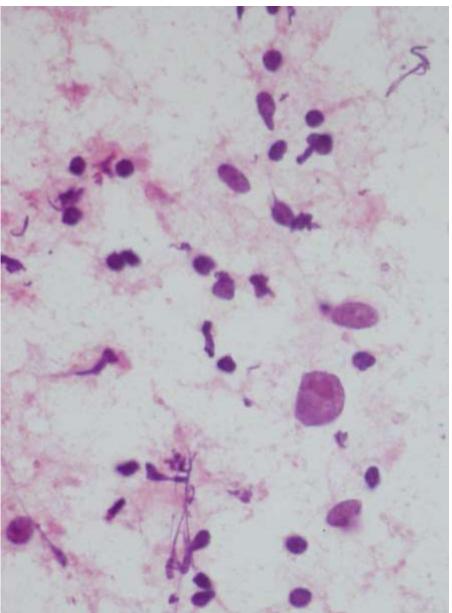




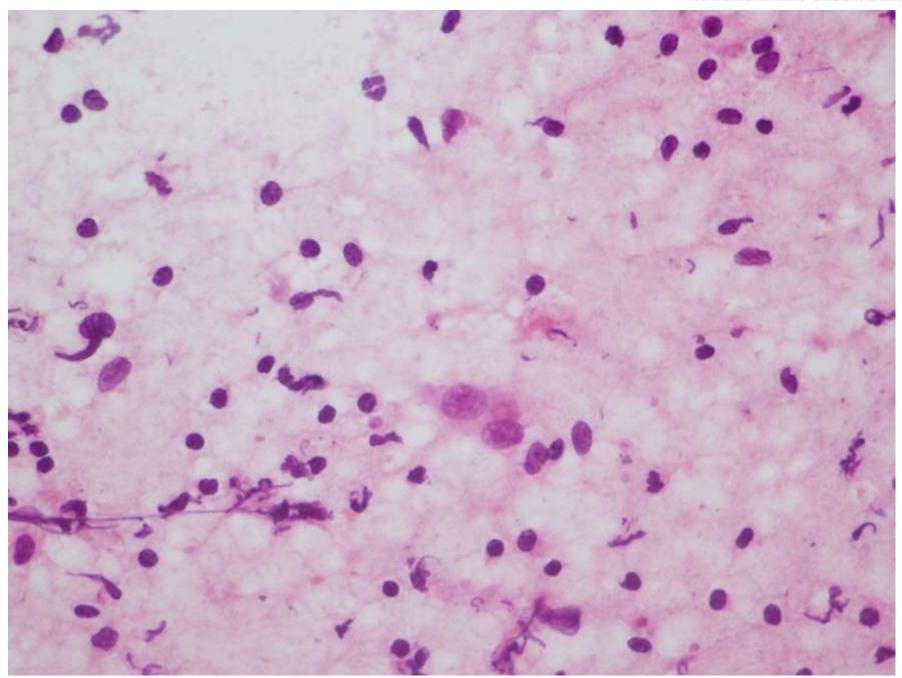


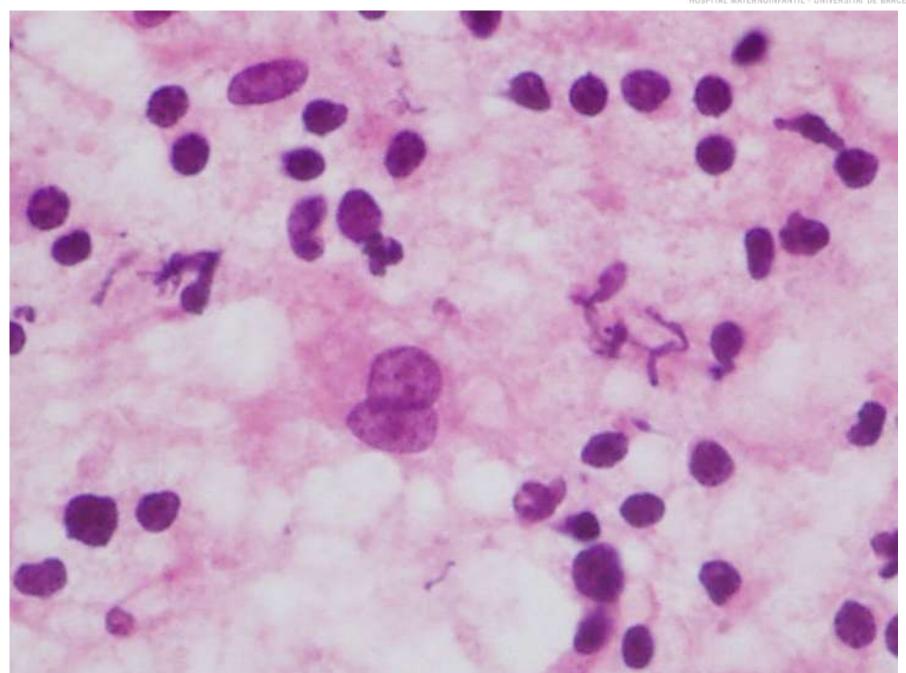








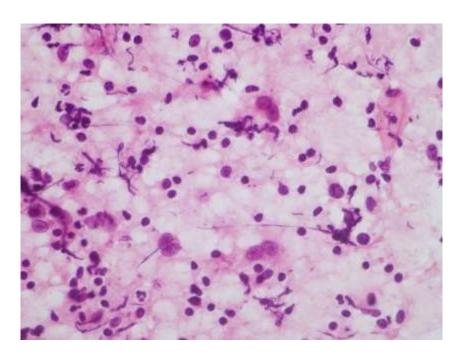






#### DIAGNOSTICO DIFERENCIAL CITOLÓGICO:

Fondo inflamatorio benigno



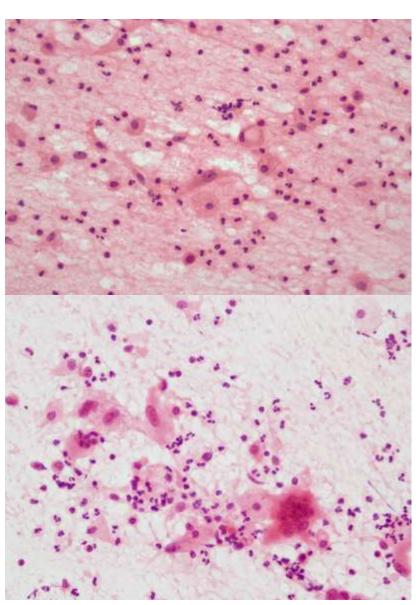
Células ganglion-like

- 1. Tumor miofibroblástico inflamatorio
- 2. Linfoma anaplásico de células grandes
- 3. Linfoma de Hodgkin

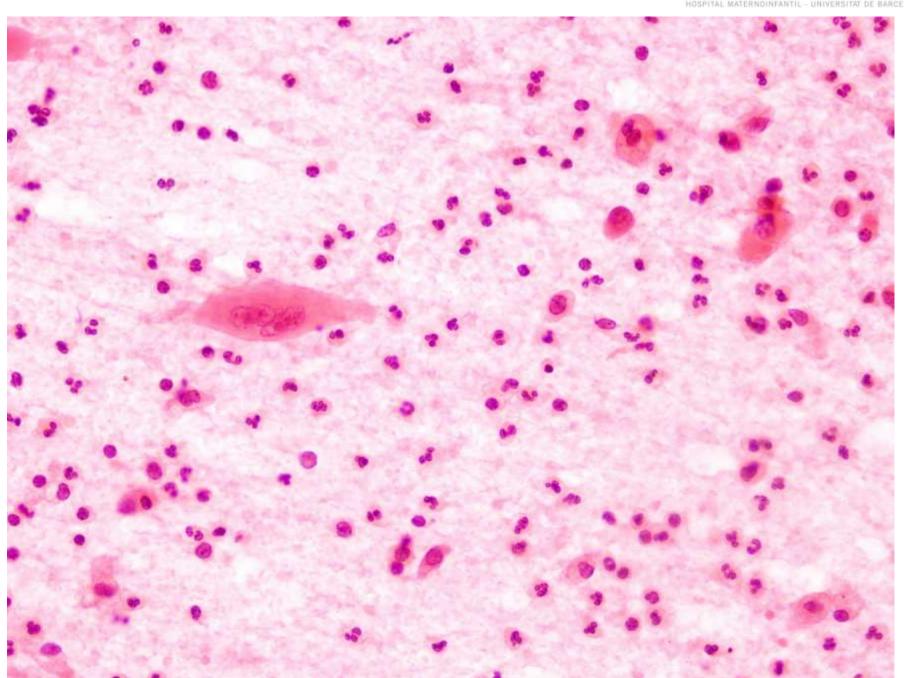


#### 1. Tumor miofibroblástico inflamatorio

- Neoplasia rara miofibroblástica de bajo potencial maligno.
- Localización:
  - Hígado 45%
  - Pulmón 40%
  - Partes blandas 15%
  - Hueso (¿?%)
- Histológicamente tres patrones:
- Patrón vascular mixoide
- 2. Patrón fusocelular
- 3. Patrón colagenizado
- Clínica: Síndrome constitucional con fiebre, sudoración nocturna, perdida peso y astenia.









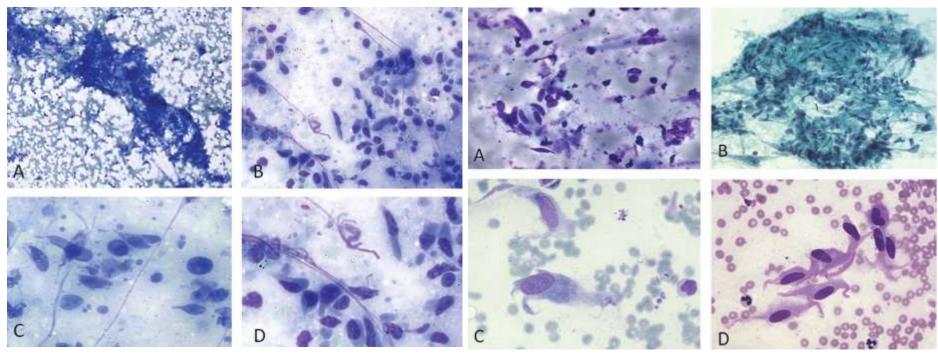




#### Cytology of Fine-Needle Aspiration of Inflammatory Myofibroblastic Tumor

Lisa Marie Stoll, M.D., M.Ph. and Qing Kay Li, M.D., Ph.D.\*

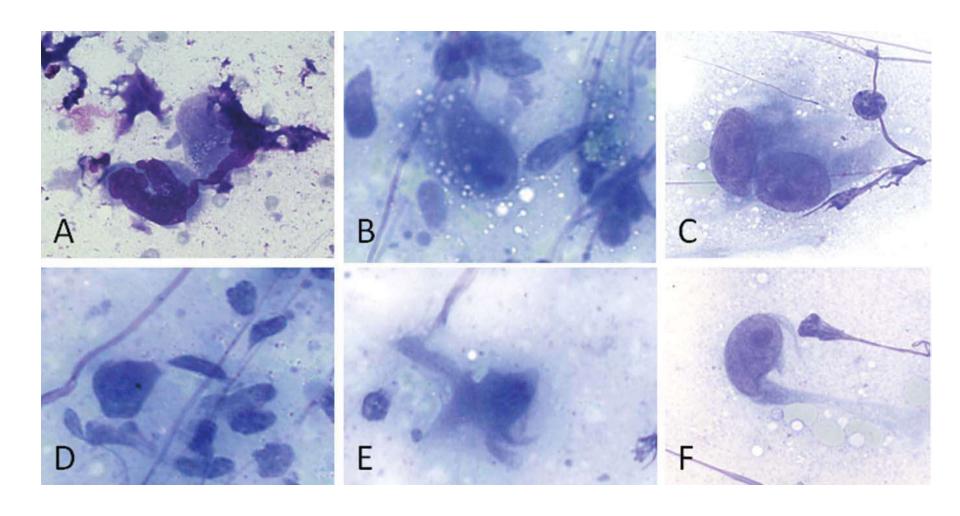
Diagnostic Cytopathology, Vol 39, No 9 © 2010 WILEY-LISS, INC.



Citología de TMI pulmonar

Citología de TMI extra-pulmonar

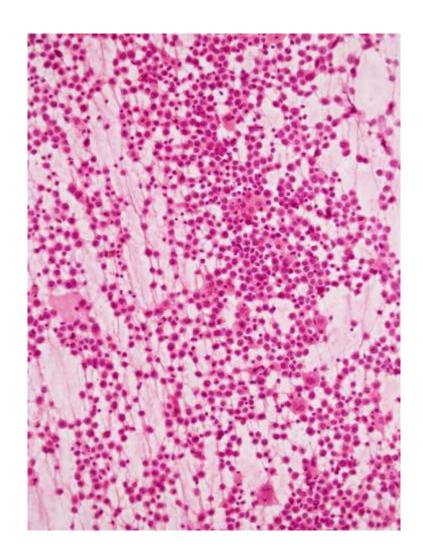




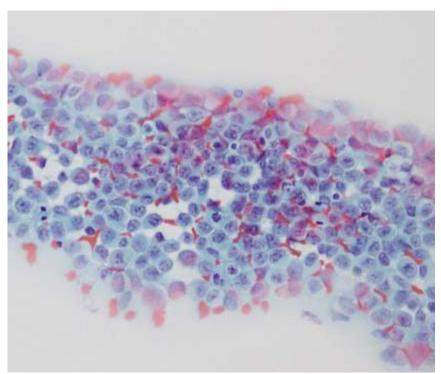


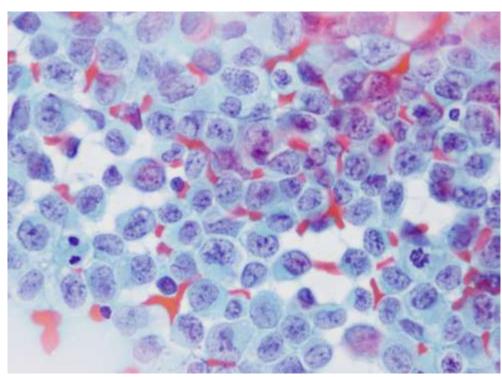
#### 2. Linfoma anaplásico células grandes ALK+

- 10-20% de los linfomas no Hodgkin en edad pediátrica: ALK + mas frec en las tres primeras décadas de la vida
- Translocación que afectando al gen ALK con expresión de CD30.
- Localización:
  - Nodal
  - Extranodal: piel, hueso, tejidos blandos, pulmón y hígado
- Distintos patrones histológicos.

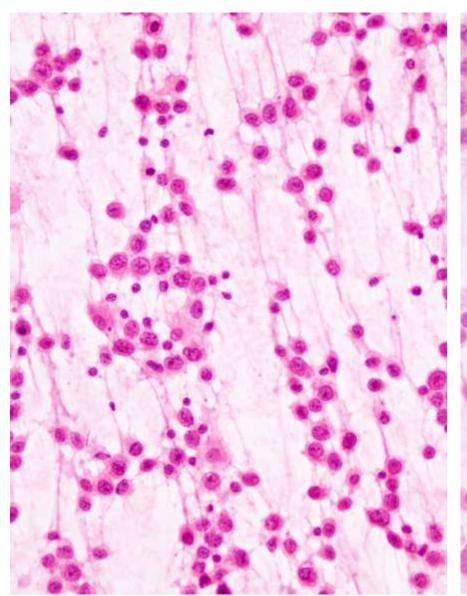


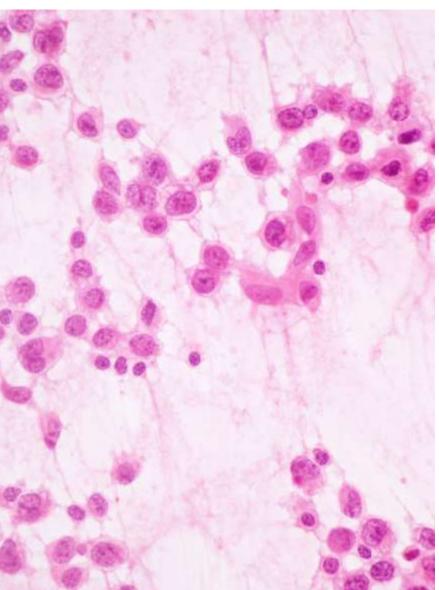










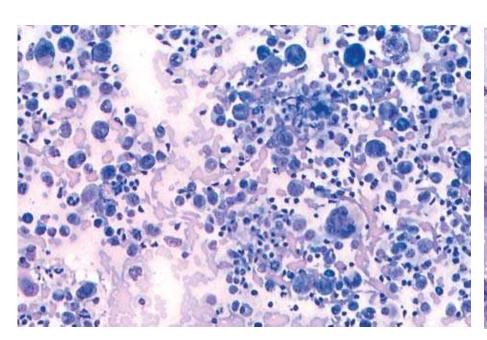


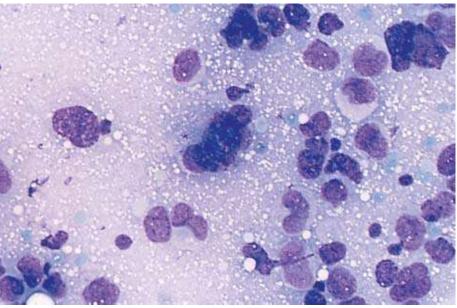




## Cytomorphologic Differentiation of Hodgkin's Lymphoma and Ki-1 + Anaplastic Large Cell Lymphoma in Fine Needle Aspirates

Walid A. Mourad, M.D., FCAP, FRCPC, Mona Al Nazer, M.D., and Asma Tulbah, M.D., FRCPA



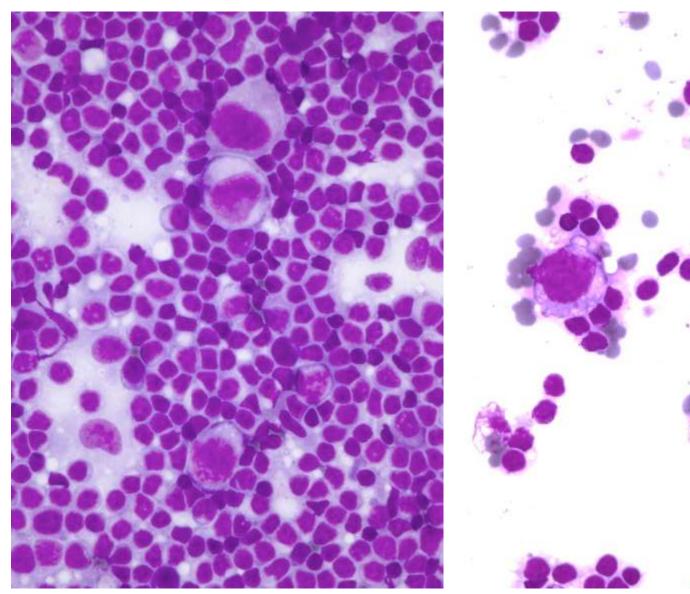


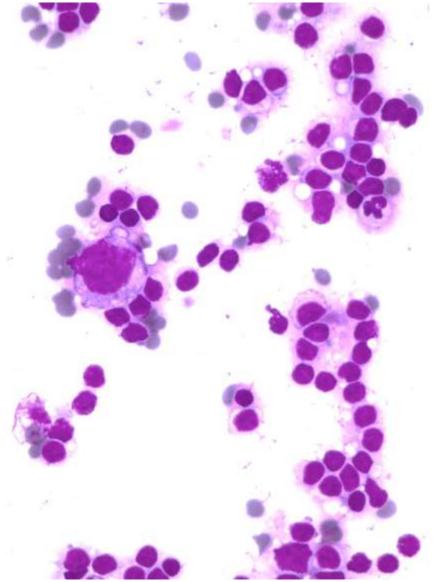


#### 3. Linfoma de Hodgkin clásico

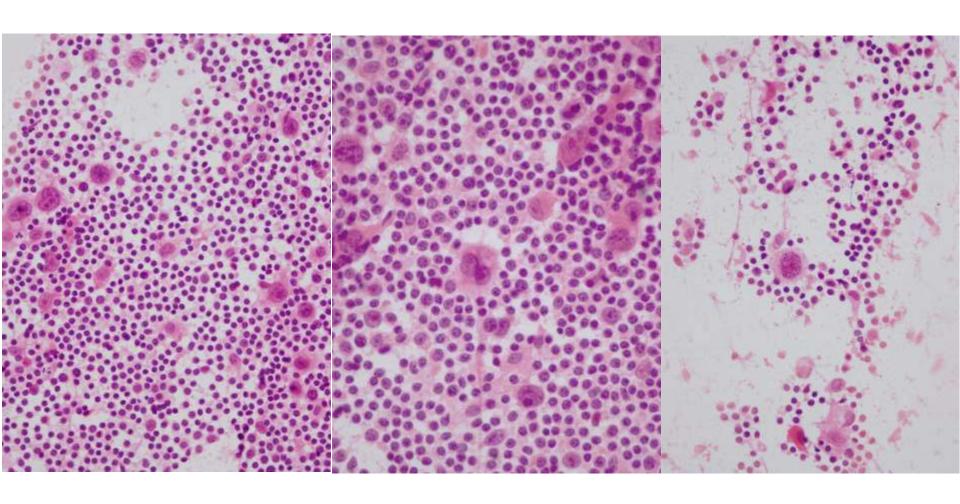
- Neoplasia monoclonal linfoide derivada de células B.
- Compuesta por:
  - Células de Hodgkin
  - Células de Reed Sternberg
  - Infiltrado inflamatorio: eosinófilos, linfocitos, células plasmáticas, neutrófilos y histiocitos.
- Subtipos histológicos:
  - Esclerosis nodular
  - Rico en linfocitos
  - Celularidad mixta
  - Depleción linfocitaria



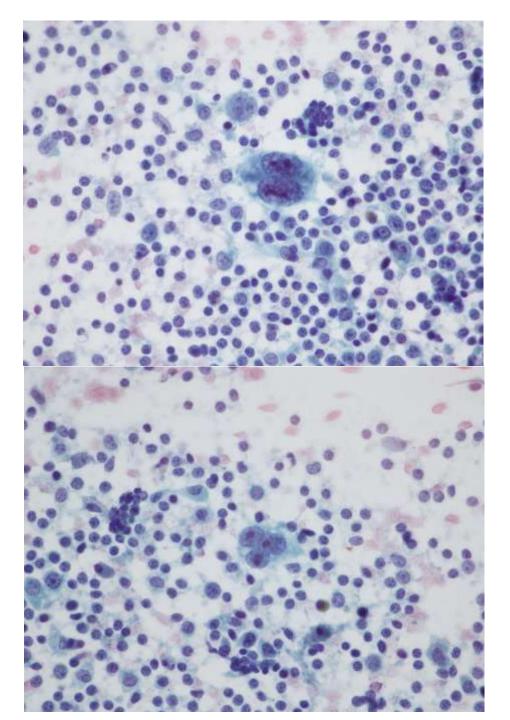




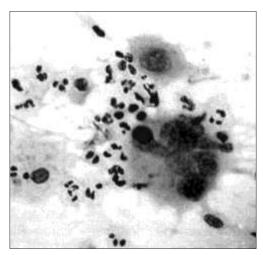


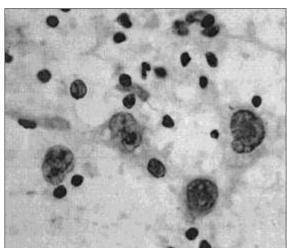








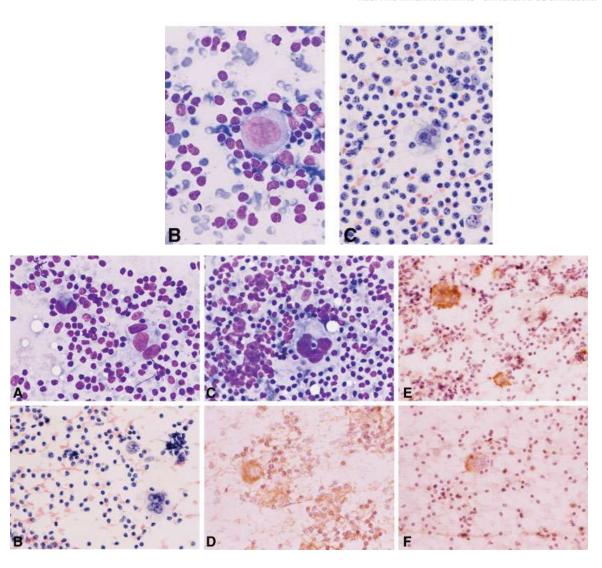




FINE NEEDLE ASPIRATION

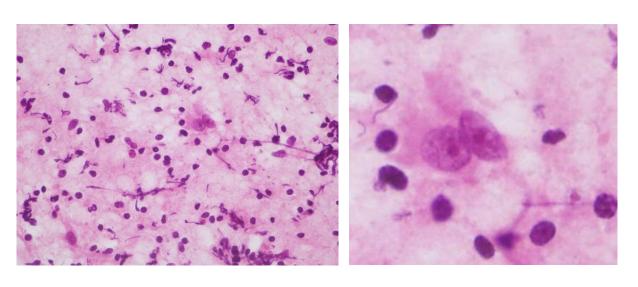
Role of Fine Needle Aspiration Cytology in Nodular Sclerosis Variant of Hodgkin's Lymphoma

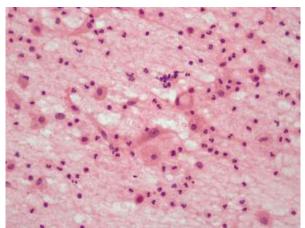
Sanjay Jogai, M.D., Pranab Dey, M.B.B.S., M.D., M.I.A.C., F.R.C.Path., Aisha Al Jassar, M.D., Amanguno H. G., F.M.C.P., and Aaron O. Adesina, F.M.C.P.



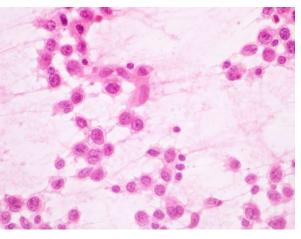


## DIAGNÓSTICO DIFERENCIAL:

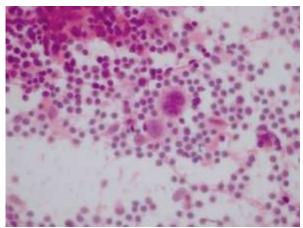




Tumor miofibroblástico inflamatorio



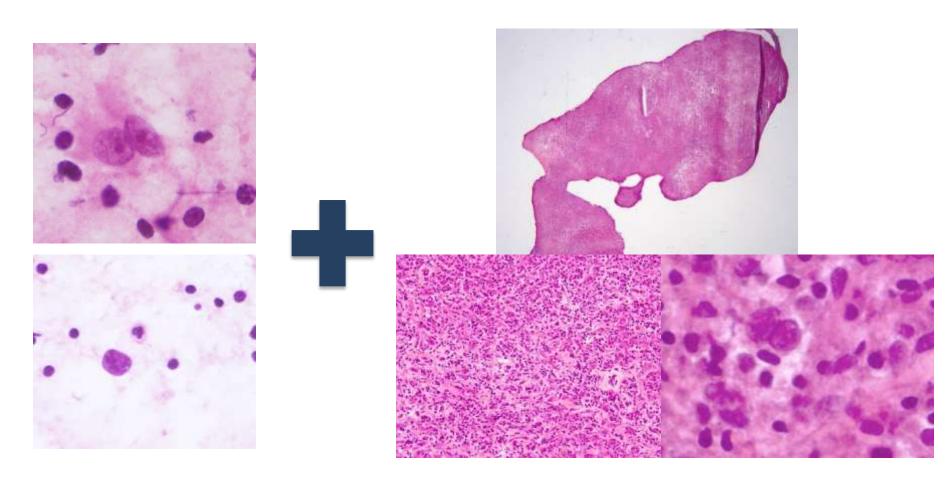
Linfoma anaplásico



Linfoma de Hodgkin

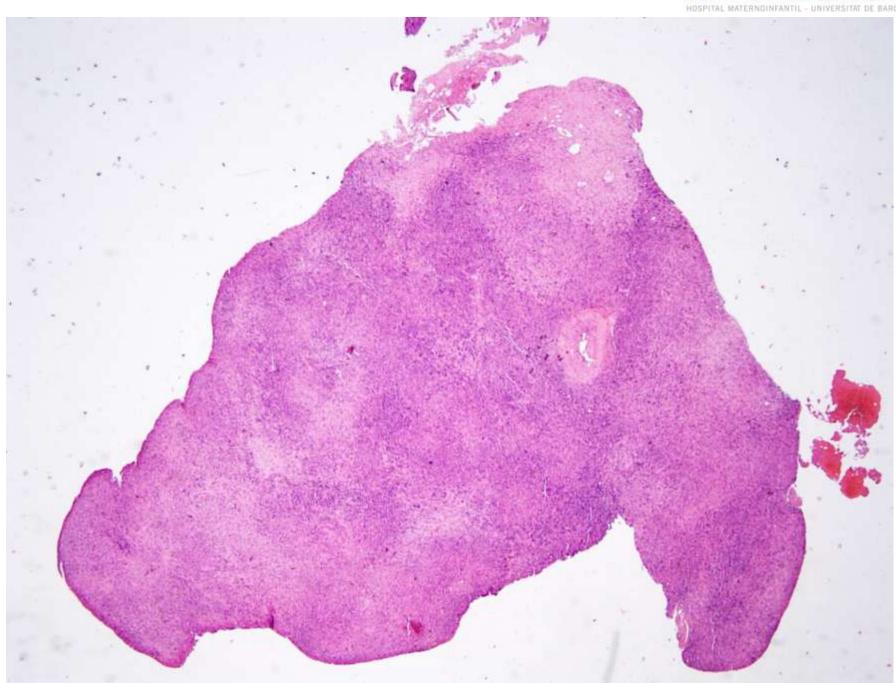


## DIAGNÓSTICO INTRAOPERATORIO:

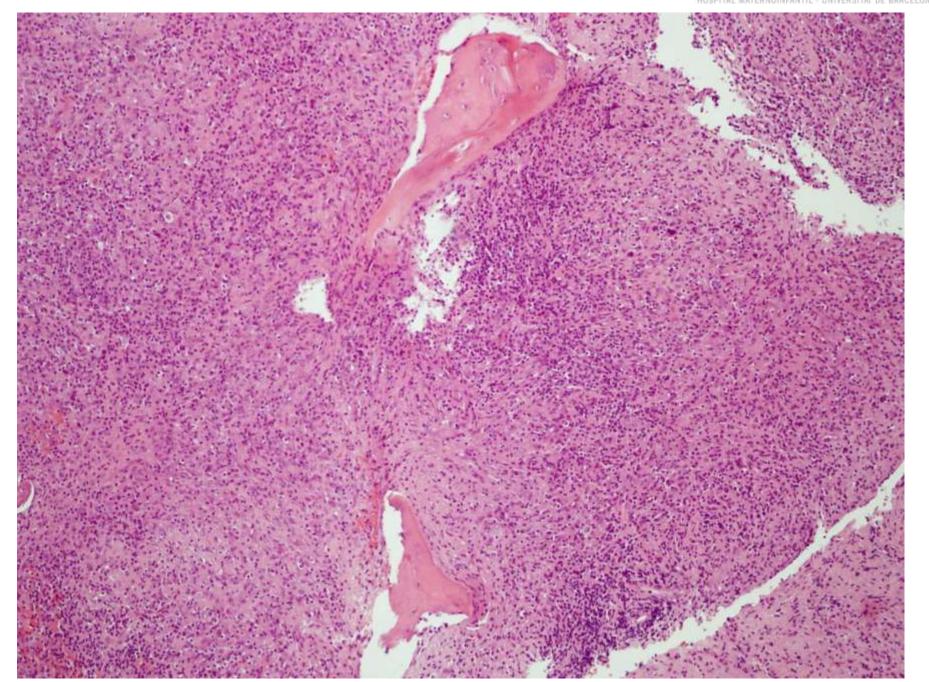


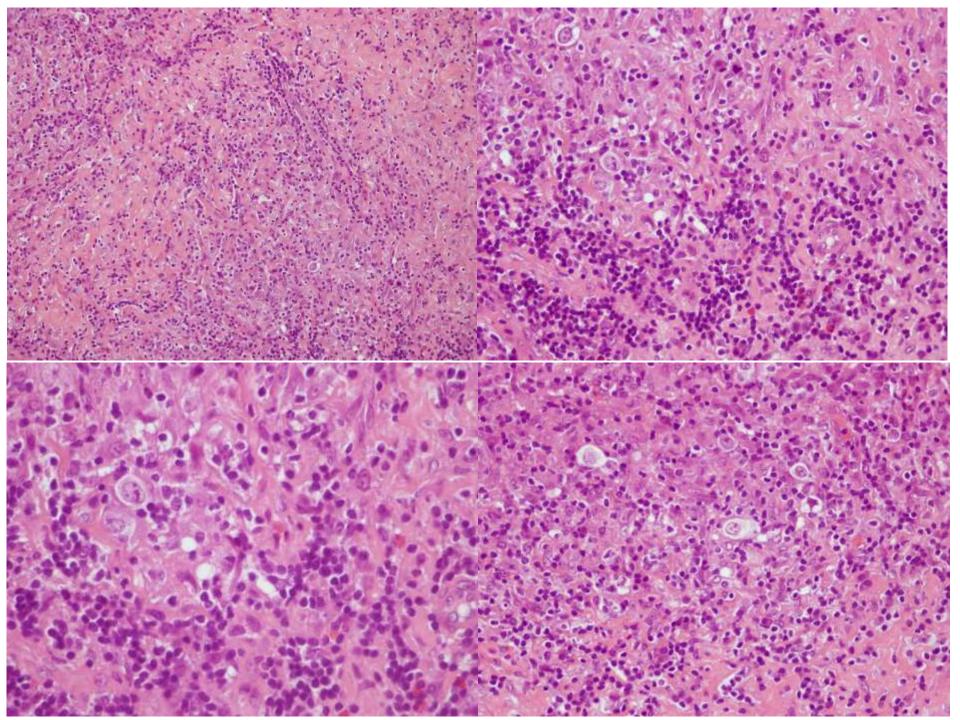
SUGESTIVO DE LINFOMA DE HODGKIN



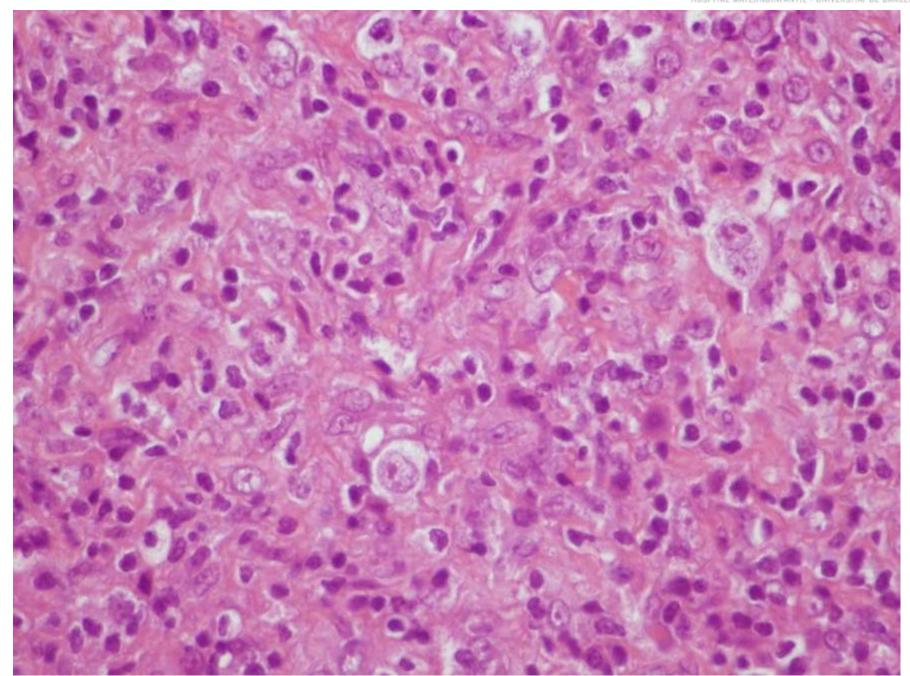




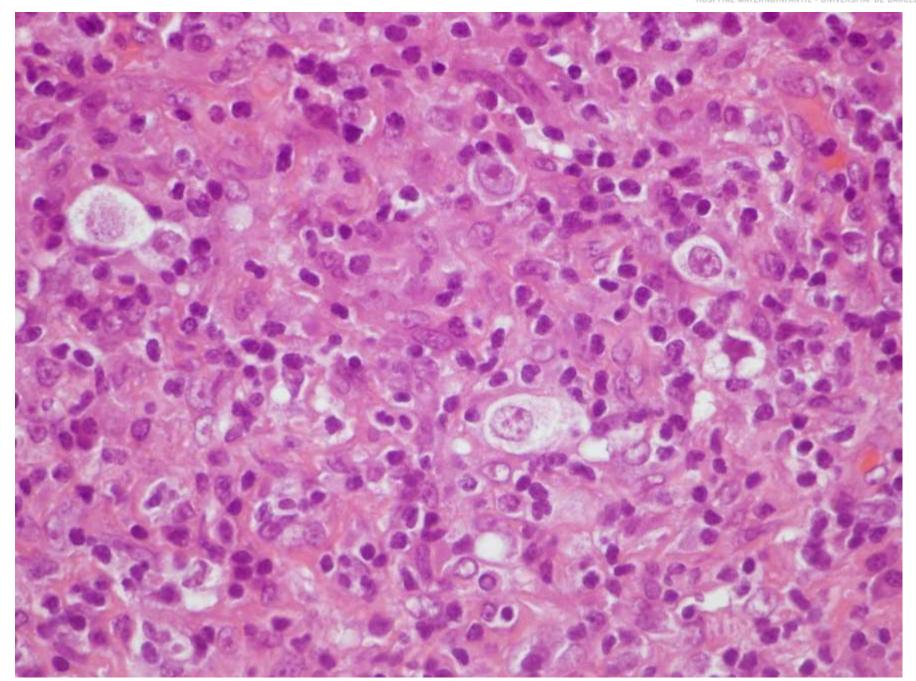




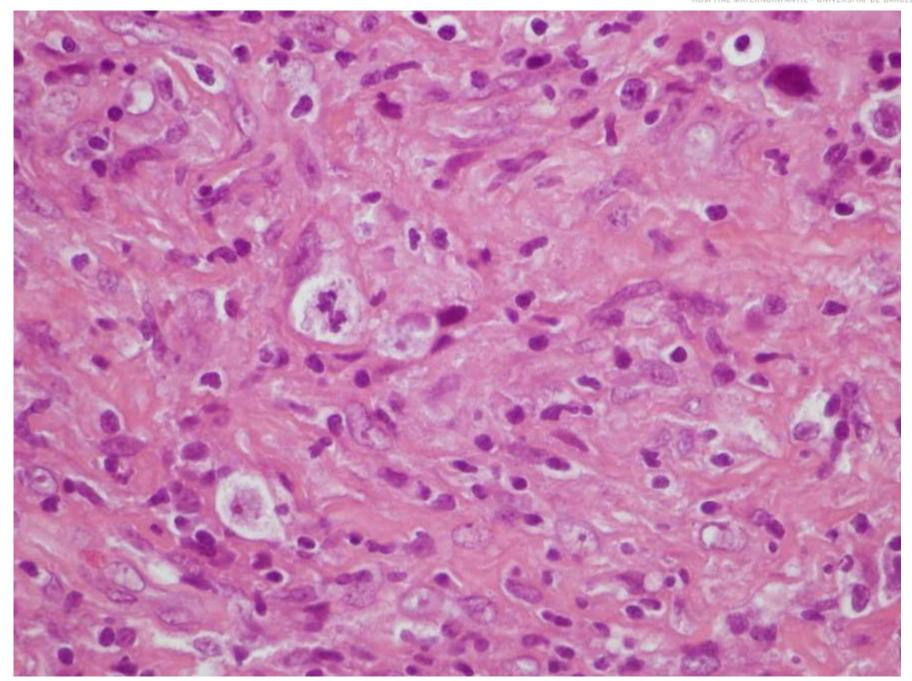




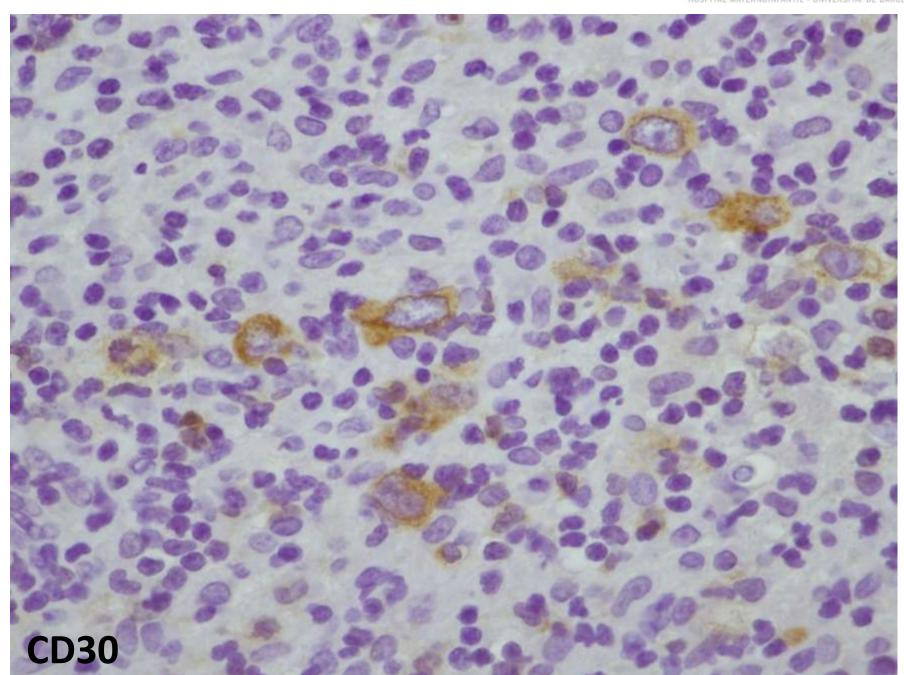




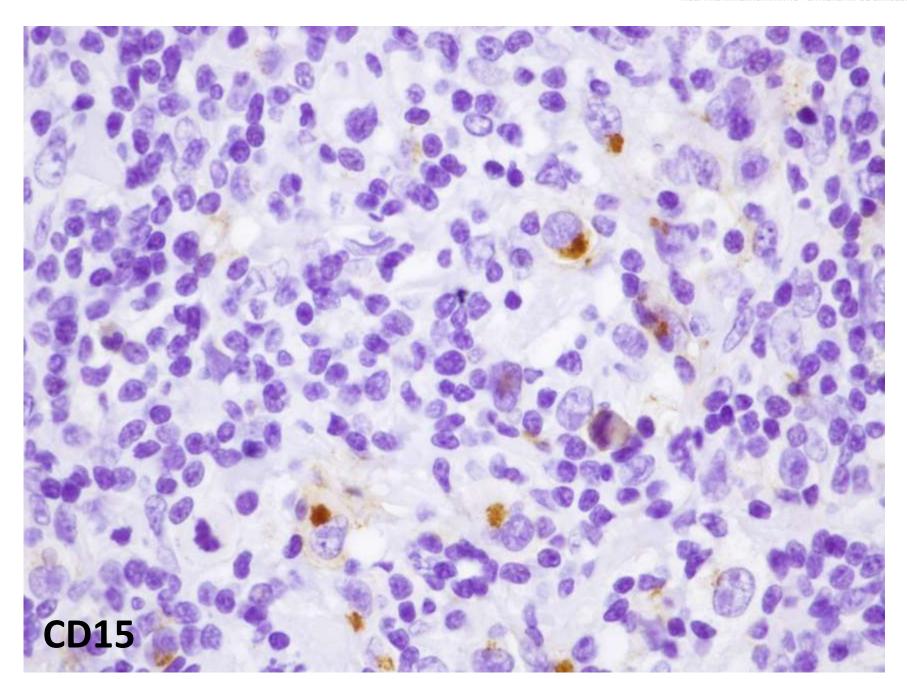


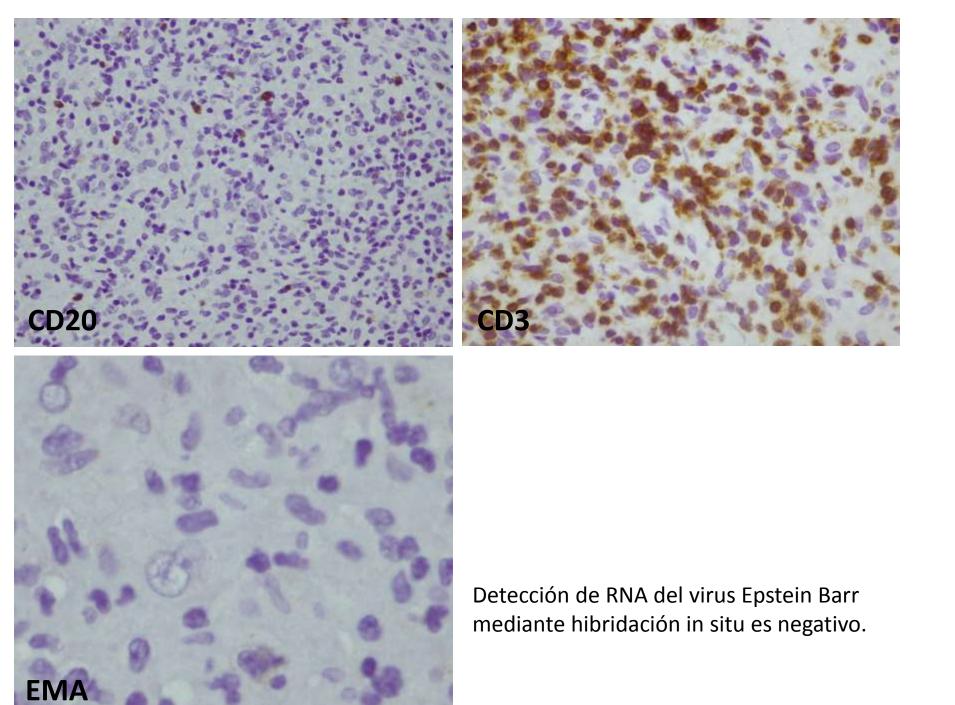






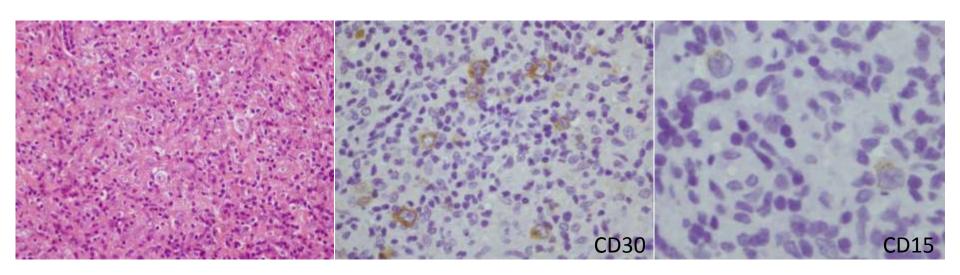








## DIAGNÓSTICO DEFINITIVO:



## LINFOMA DE HODKGIN CLÁSICO, TIPO ESCLEROSIS NODULAR



# Hodgkin's Lymphoma: Diagnostic Difficulties in Fine-Needle Aspiration Cytology

Dilip K. Das, M.B.B.S., M.D., Ph.D., D.Sc., F.R.C.Path., <sup>1,2</sup> Issam M. Francis, M.B.Ch.B., F.R.C.Path., <sup>1,3</sup> Prem N. Sharma, M.Sc., Ph.D., <sup>4</sup> Sitara A. Sathar, M.B.B.S., <sup>1</sup> Bency John, M.Sc., <sup>1</sup> Sara S. George, M.Sc., Ph.D., <sup>1</sup> Mrinmay K. Mallik, M.B.B.S., M.D., <sup>2</sup> Zaffar A. Sheikh, M.B.B.S., D.C.P., F.I.A.C., <sup>2</sup> Bahiyah E. Haji, M.B.B.Ch., D.C.P., M.Sc., <sup>2</sup> Shahed K. Pathan, M.B.B.S., M.D., <sup>2</sup> John P. Madda, M.B.B.Ch., F.R.C.Path., <sup>5</sup> Kahvic Mirza, M.D., Ph.D., <sup>6</sup> Mahamoud S. Ahmed, M.B.B.Ch., M.Sc., Ph.D., <sup>7</sup> and Thamradeen A. Junaid, M.B.B.S., Ph.D., F.R.C.Path., <sup>1,8</sup>

*Diagnostic Cytopathology, Vol 37, No 8* © 2009 WILEY-LISS, INC.

- Dificultad del diagnóstico del linfoma de Hodgkin por PAAF es debido:
  - Grado de esclerosis
  - Distinta densidad de células de Reed-Sternberg
  - Dificultad en la identificación las células lacunares en los extendidos citológicos.
- Células de Reed-Sternberg-like en:
  - Linfoma anaplásico
  - Melanoma metastásico
  - Carcinoma metastásico
  - Hiperplasia reactiva de ganglio linfático

En la edad pediátrica en el TUMOR MIOFIBROBLÁSTICO INFLAMATORIO



#### Linfoma de Hodgkin clásico, tipo esclerosis nodular

- Ganglios mediastino 80%
- Pulmonar y/o esplénica 10%
- Ósea 5%
- Médula ósea 3%
- Hígado 2%
- Afectación primaria extranodal en un 1%.
- Afectación ósea:
  - Diagnóstico <2%.</li>
  - Estadios avanzados 9–35% de los casos.
- Lesiones vertebrales 5'8% pacientes con LH



#### Unusual primary osseous Hodgkin's lymphoma: A case report

WEI LUO, FANGJIE ZHANG, JINPENG SUN and HONGBO HE

Department of Orthopedics, Xiangya Hospital, Central South University, Changsha, Hunan 410008, P.R. China

Received April 17, 2014; Accepted October 15, 2014

DOI: 10.3892/ol.2014.2724

# 50 casos7 edad pediátrica

Pediatr Blood Cancer 2010;55:560-561

#### BRIEF REPORT Eosinophilia and Multifocal Vertebral Involvement With Hodgkin Lymphoma

Serhan Küpeli, MD, MSc,\* Fehime Kara, MD, Canan Akyüz, MD, and Münevver Büyükpamukçu, MD

Patients with Hodgkin lymphoma (HL) usually present with lymphadenopathies. Osseous involvement at presentation is extremely rare. Occurrence of both eosinophilia and osseous involvement has not been reported frequently. We present an

adolescent female complaining of lower back pain for 6 months, in whom, multifocal vertebral involvement and peripheral blood eosinophilia preceded the final diagnosis of HL. Pediatr Blood Cancer 2010;55:560–561 © 2010 Wiley-Liss, Inc.

Key words: eosinophilia; Hodgkin lymphoma; vertebral involvement

CASE OF MONTH FEBRUARY 2010

doi:10.1111/j.1750-3639.2010.00382.x

#### **20 YEAR OLD LADY WITH A PARASPINAL MASS**

Orna O'Toole<sup>1</sup>, Alan O'Hare<sup>2</sup>, Liam Grogan<sup>4</sup>, Ciaran Bolger<sup>3</sup>, Francesca M. Brett<sup>1</sup>

Departments of <sup>1</sup> Neuropathology, <sup>2</sup> Neuroradiology, <sup>3</sup> Neurosurgery and <sup>4</sup> Oncology Beaumont Hospital, Dublin 9.





#### **CASE REPORT**

**Open Access** 

Hodgkin's lymphoma masquerading as vertebral osteomyelitis in a man with diabetes: a case report

Rachel A Bender Ignacio<sup>1</sup>, Anne Y Liu<sup>2</sup>, Aliyah R Sohani<sup>3</sup>, Jatin M Vyas<sup>1,2\*</sup>

#### **World Journal of Surgical Oncology**



Review

Open Access

Primary multifocal osseous Hodgkin's lymphoma

Clare R Langley\*<sup>1</sup>, Simon JW Garrett<sup>2</sup>, Jill Urand<sup>3</sup>, Janice Kohler<sup>3</sup> and Nick MP Clarke<sup>3</sup>





The Spine Journal 13 (2013) e59-e63

Case Report

#### Hodgkin's disease of the thoracic vertebrae

Masashi Uehara, MD<sup>a</sup>, Jun Takahashi, MD, PhD<sup>a\*</sup>, Hiroki Hirabayashi, MD, PhD<sup>a</sup>, Jun Kitahara, MD<sup>a</sup>, Tetsuyoshi Kamijyo, MD<sup>a</sup>, Sohei Ebara, MD, PhD<sup>b</sup>, Hiroyuki Kato, MD, PhD<sup>a</sup>

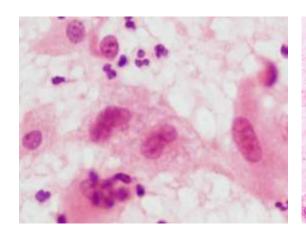
\*Department of Orthopsed is Surgery, Stillish i University, School of Medicine, 3-1-1 Assah, Markimoto City, Nagario 350-5521, Japan \*Department of Orthopsed is Surgery, Stilliam Tokinsh ihall Hospital, 1-5-1 Tisijihardal, Fijihana City, Kanagama 251-0041, Japan Received 3 November 2011; revised 21 October 2012; accepted 1 March 2013 VERTEBRA

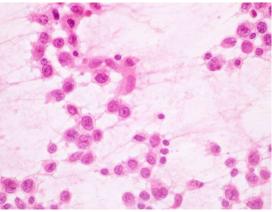
 Puede imitar procesos inflamatorios

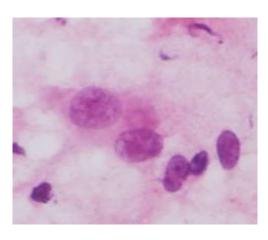


#### CONCLUSIONES:

- La extensión citológica en el acto intraoperatorio es de gran ayuda en la tipificación de las lesiones.
- Presencia de células "ganglion-like" y fondo inflamatorio en una lesión de partes blandas +/- afectación ósea en la edad pediátrica plantea el diagnostico diferencial entre:
  - Tumor miofibroblástico inflamatorio
  - Linfoma anaplásico
  - Linfoma de Hodkgin







## MUCHAS GRACIAS

#### **AGRADECIMIENTOS:**

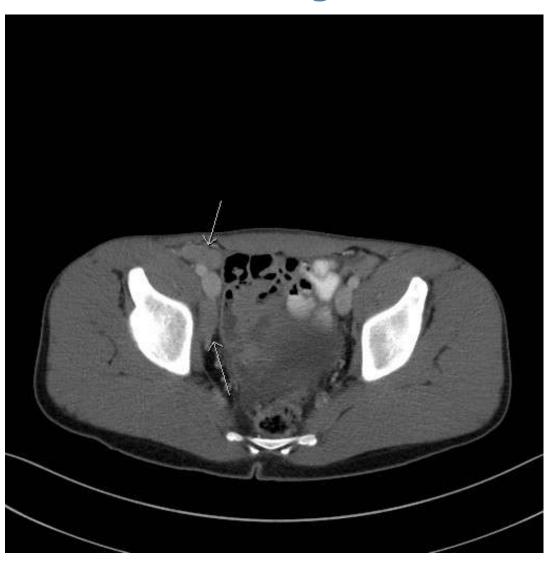
Dr. Emili Hinarejos. Servei de Diagnòstic per la Imatge. HSJD



- Un elevado porcentaje de linfomas no-Hodgkin se diagnostican y clasifican por PAAF.
- El uso de la PAAF es menos relevante y con un papel mas controvertido en el diagnostico del linfoma de Hodgkin.
- La sensibilidad de la PAAF es extremadamente variable, con rangos variables entre 30 y el 90% según las series publicadas en la literatura.
- La clasificación histológica en base a criterios citológicos únicamente es ampliamente debatido.



#### Pruebas de imagen:



Adenopatías en región:

- Paraaorticas
- Cadena iliaca común
- Iliaca externa e interna
- Inguinales

Tamaños entre 1 y 3'3 cm