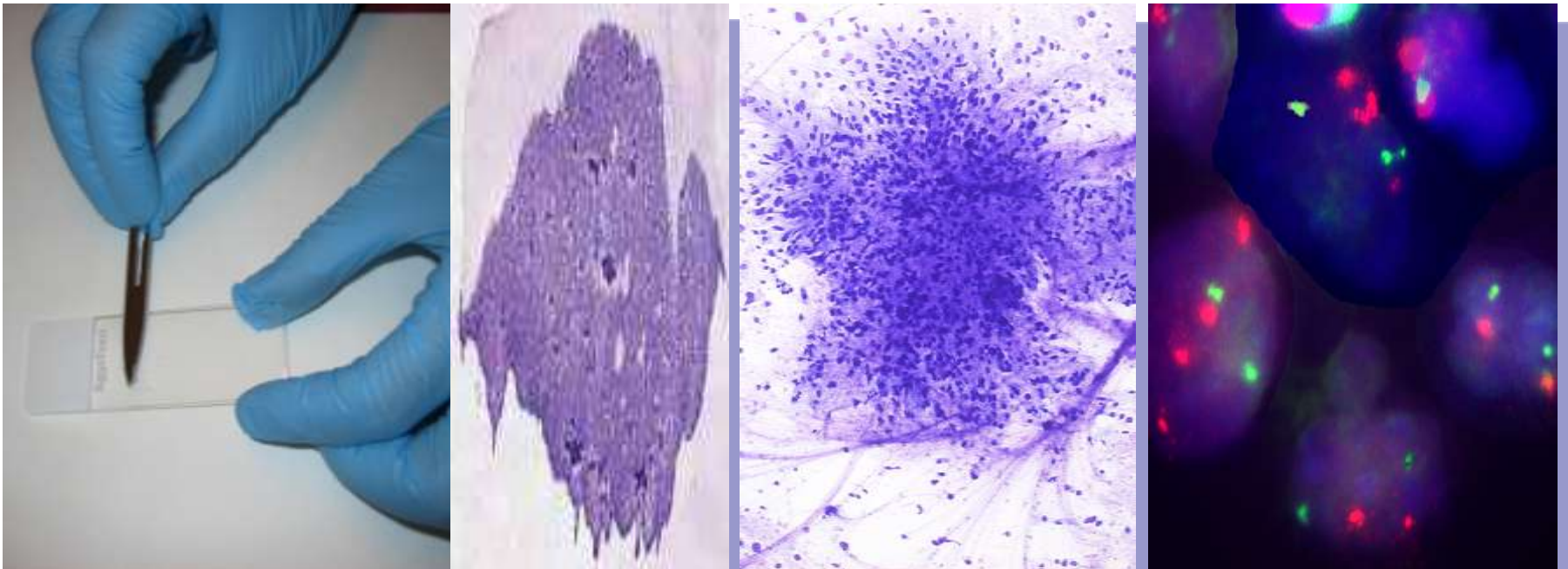


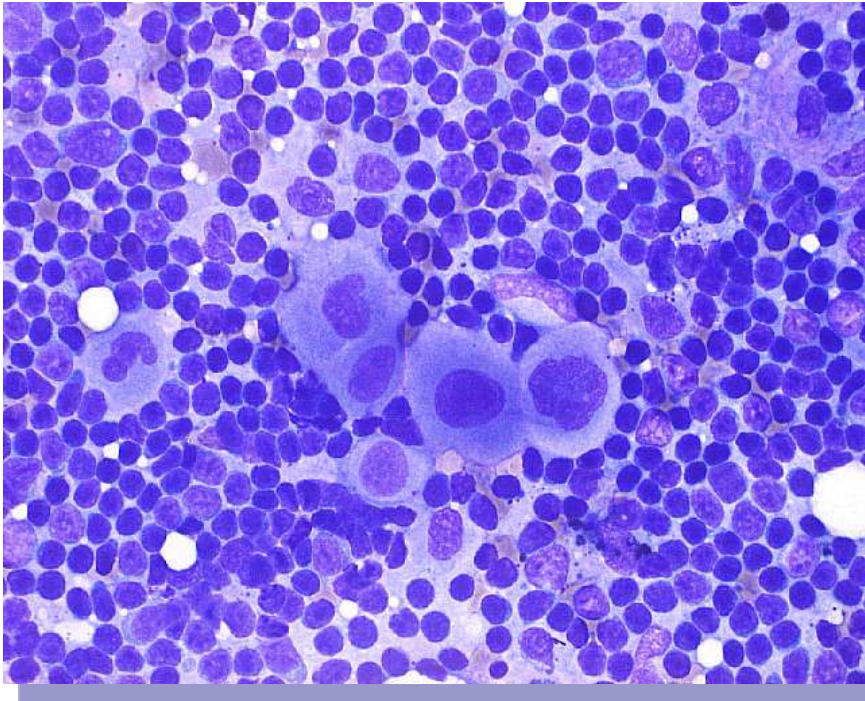
CITOLOGÍA INTRAOPERATORIA

“Ventajas, metodología e indicaciones”

J. Sáenz-Santamaría. MD, PhD, FIAC



CITOLOGÍA INTRAOPERATORIA



Professor Leonard S. Dudgeon, 1876-1938

....a very beautiful method of demonstrating the appearance of malignant and other cells showing the structural details of the individual cells in a manner not seen in the corresponding sections. *Dudgeon and Patrick, 1.927*

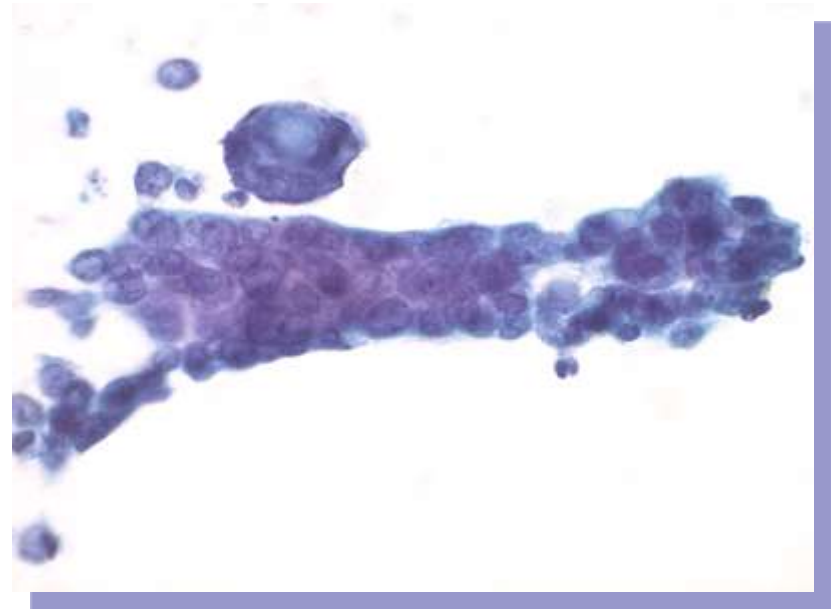
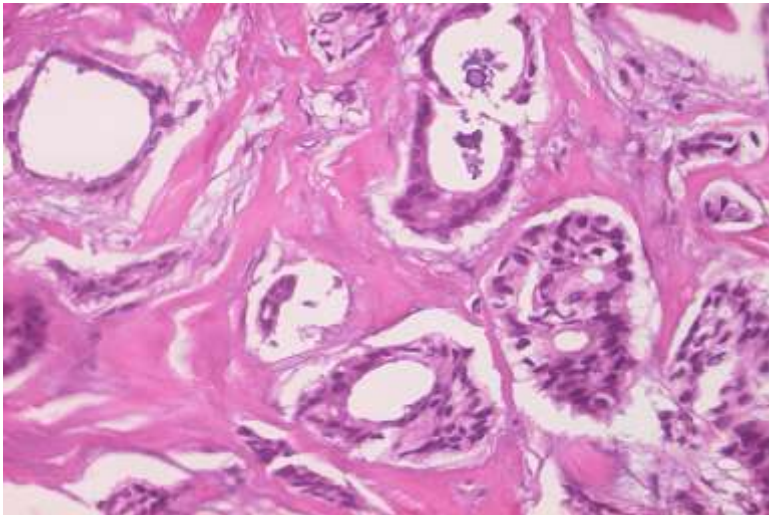
CITOLOGÍA INTRAOPERATORIA

Ventajas

Indicaciones

Tinciones

Métodos



Carcinoma tubular de mama

VENTAJAS

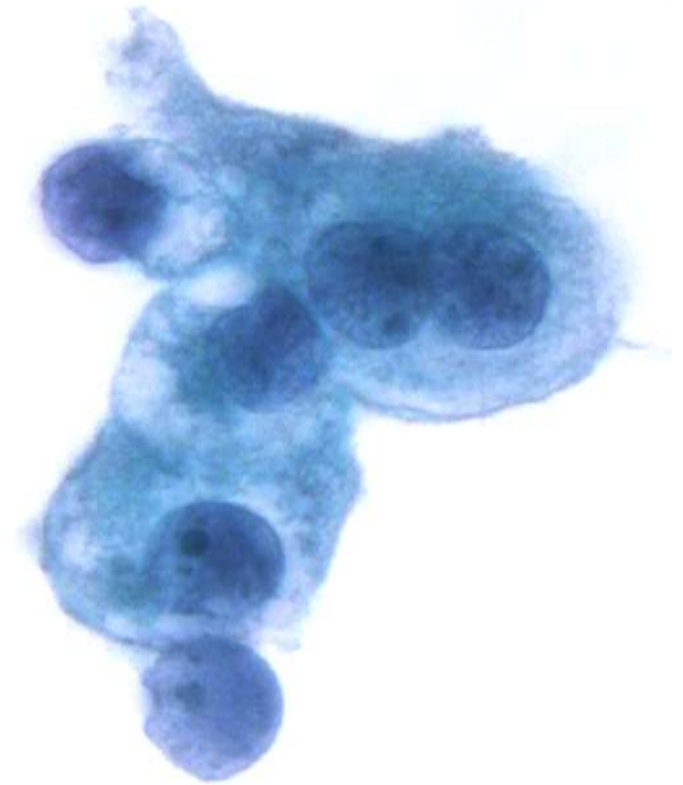
Detalle citológico

Similar a la PAAF

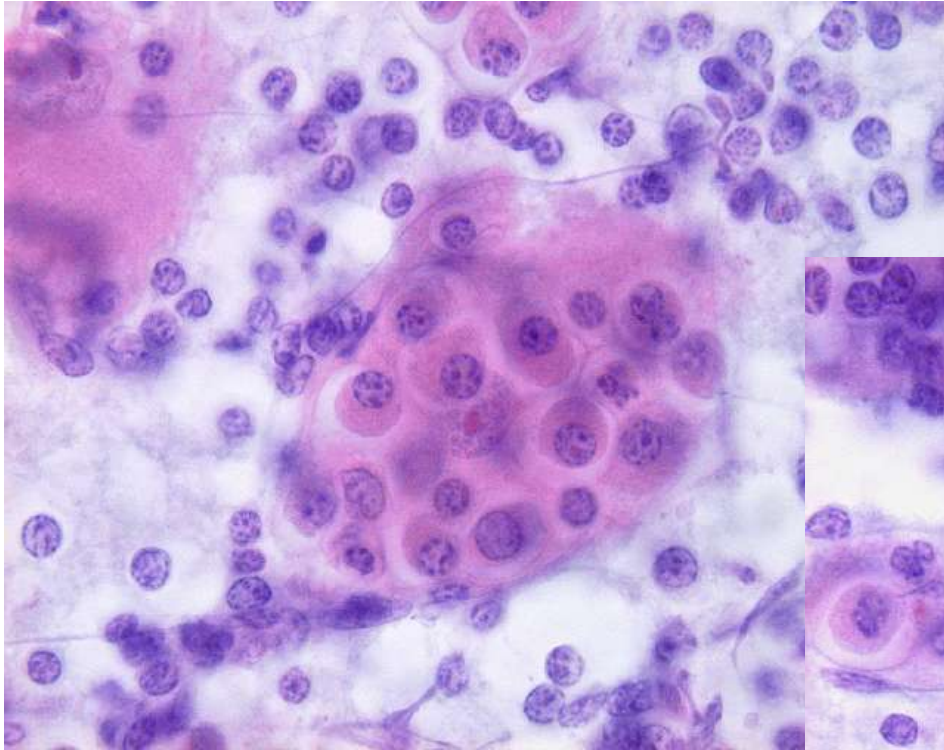
Rapidez

Estudios complementarios

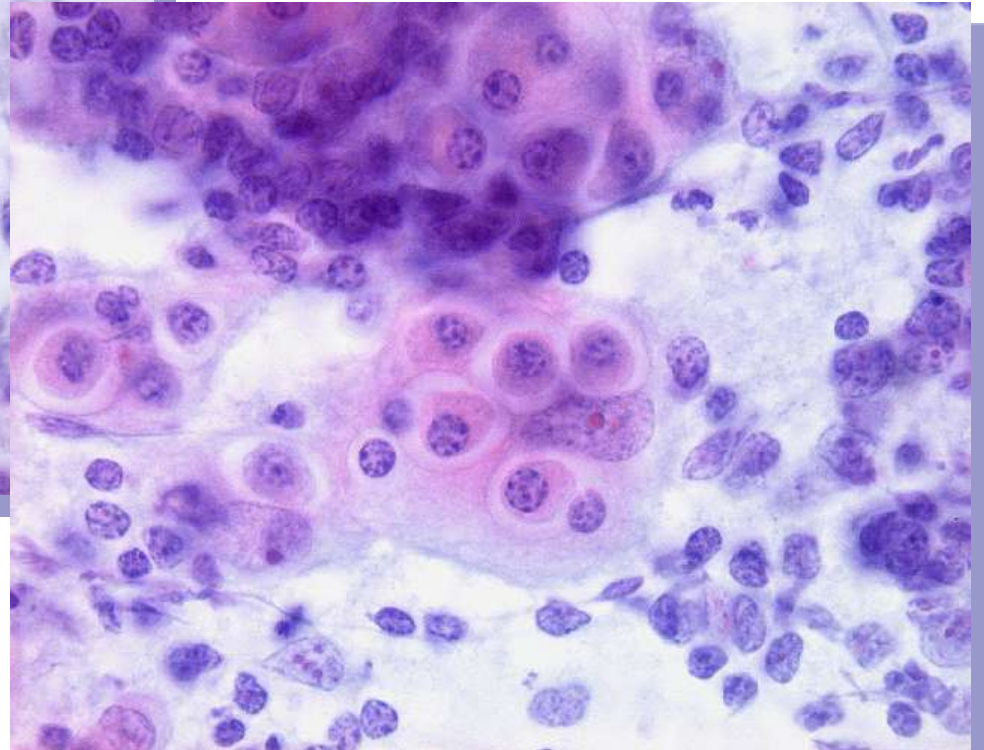
Bancos de Tumores



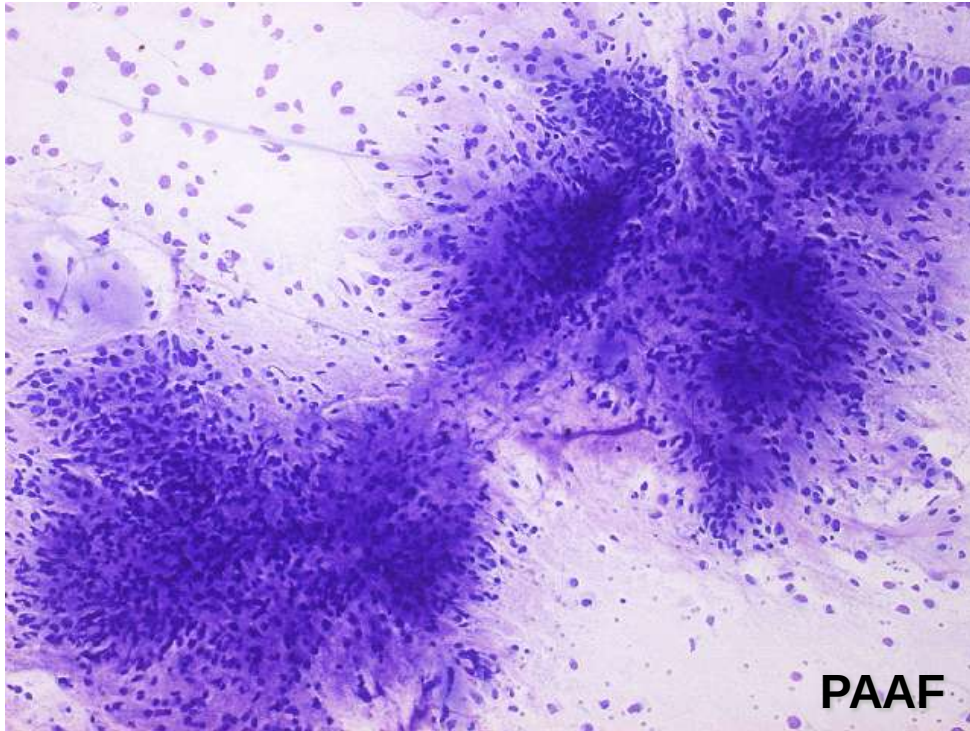
DETALLE CITOLÓGICO



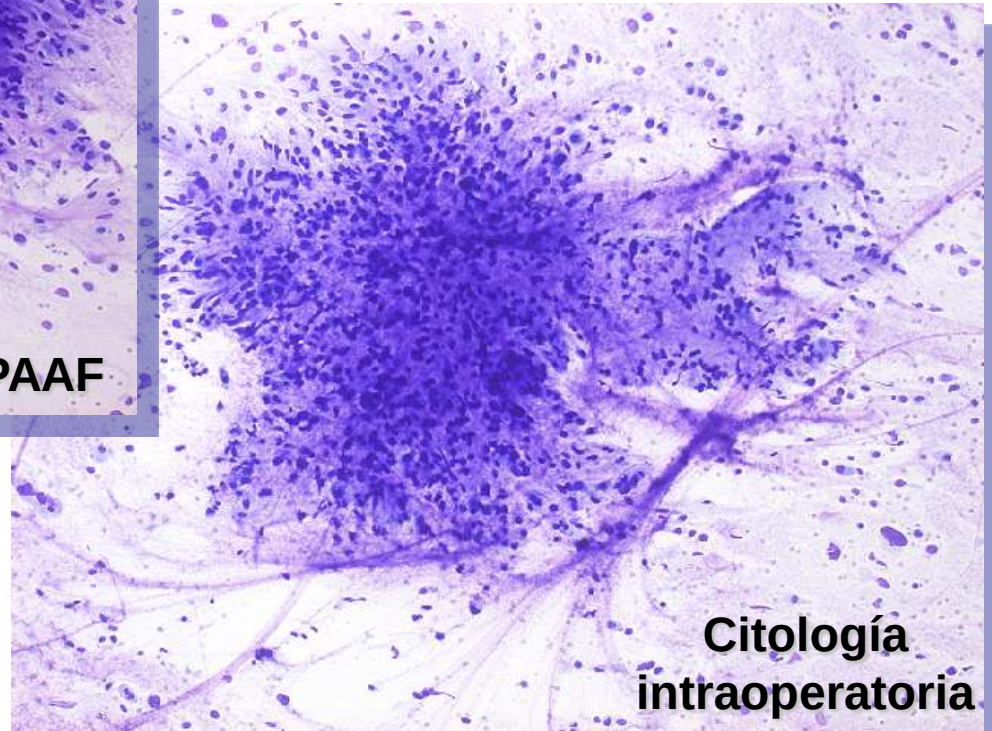
Enfermedad de Rosai-Dorfman. Pap-Quick



SIMILAR A LA PAAF

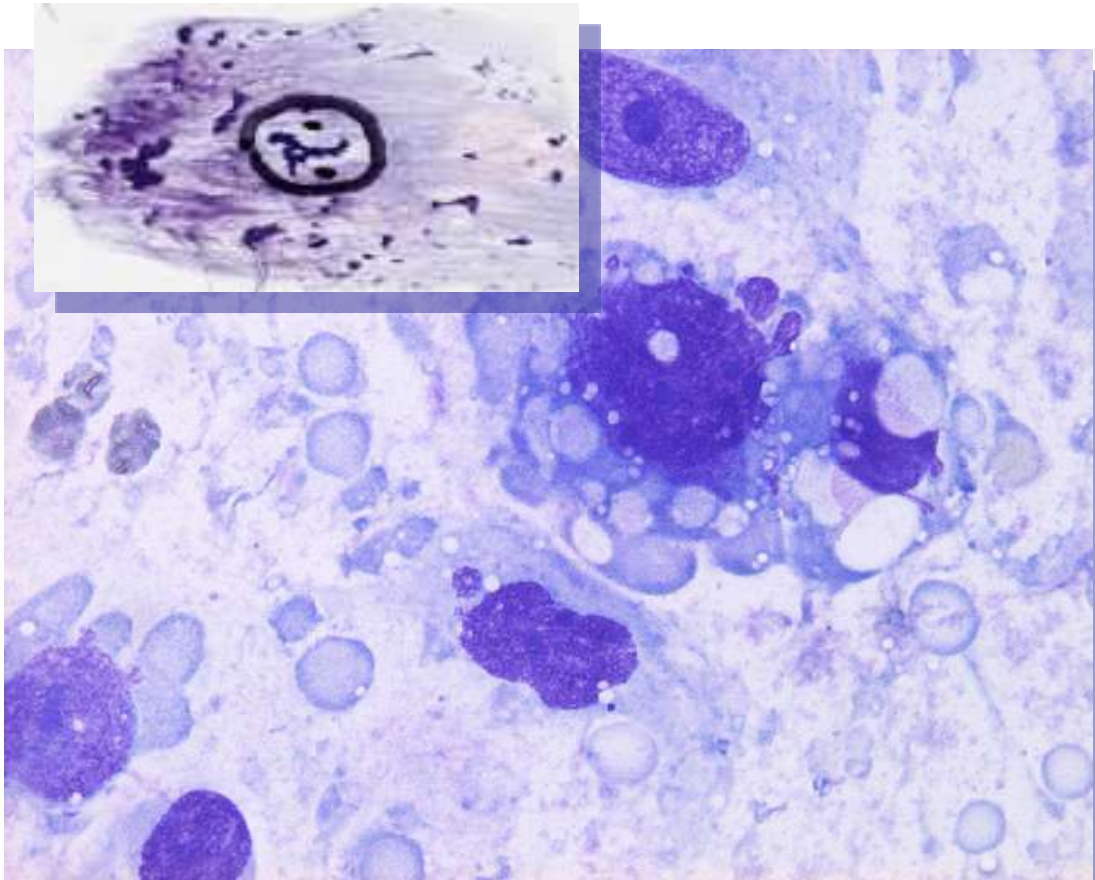


PAAF



**Citología
intraoperatoria**

RAPIDEZ

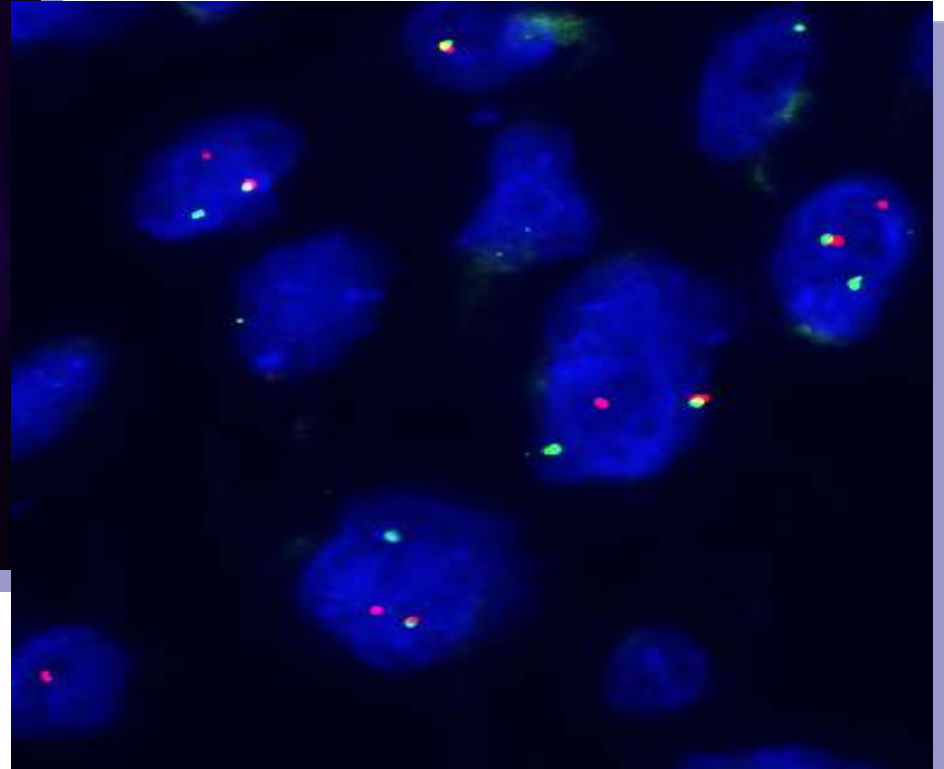
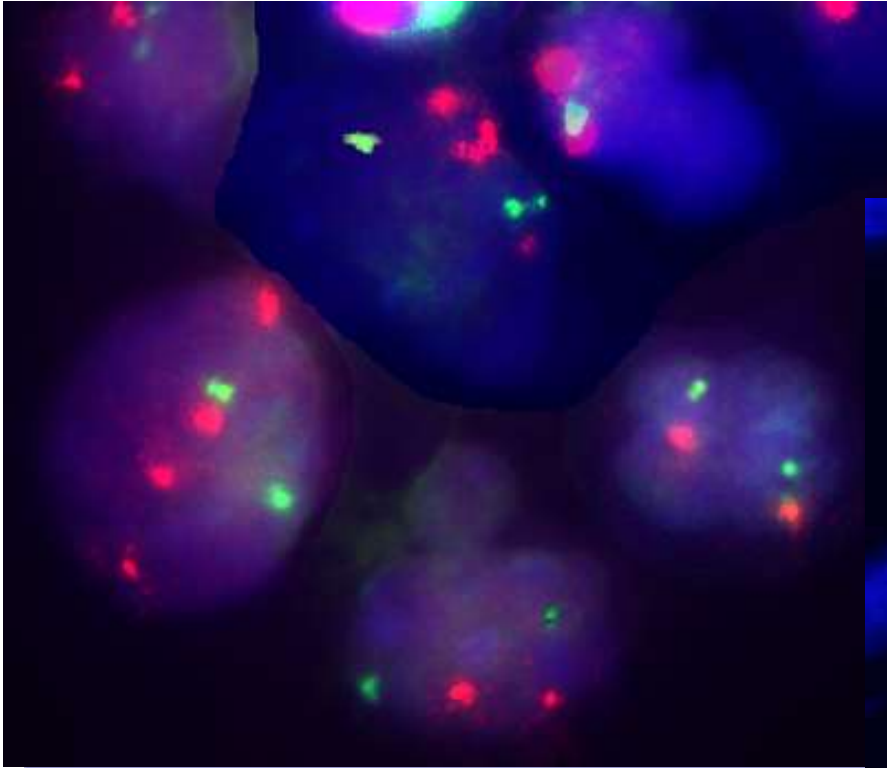


40" – 1min

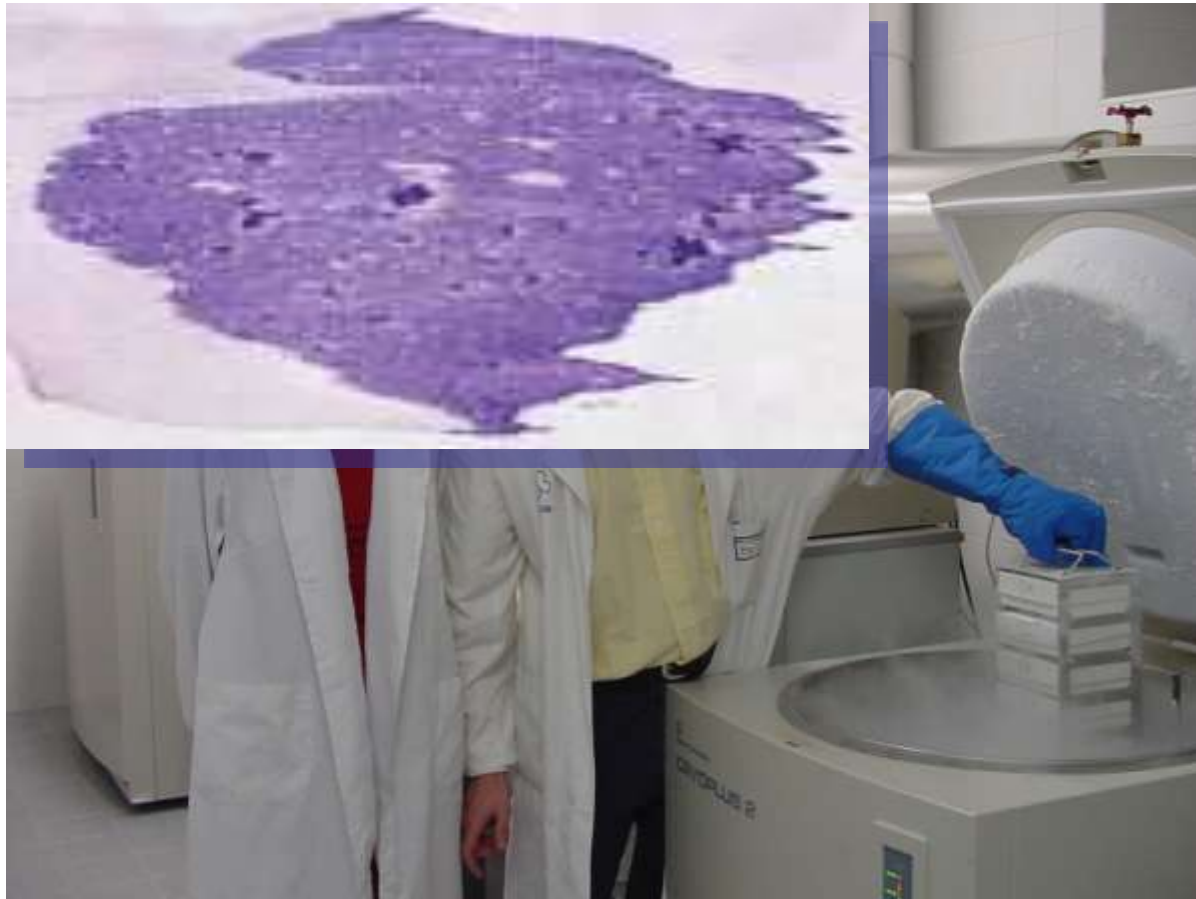


4-6 minutes

FACILITA LOS ESTUDIOS COMPLEMENTARIOS (FIHS)



BANCOS DE TUMORES



CITOLOGÍA INTRAOPERATORIA

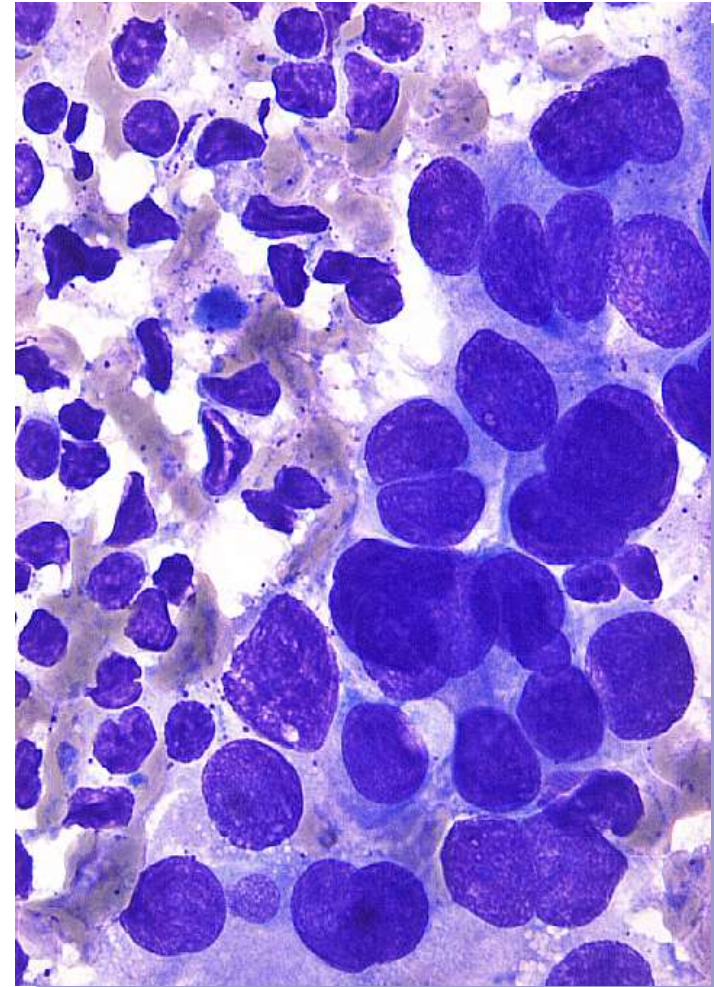
INDICACIONES

Muestras pequeñas

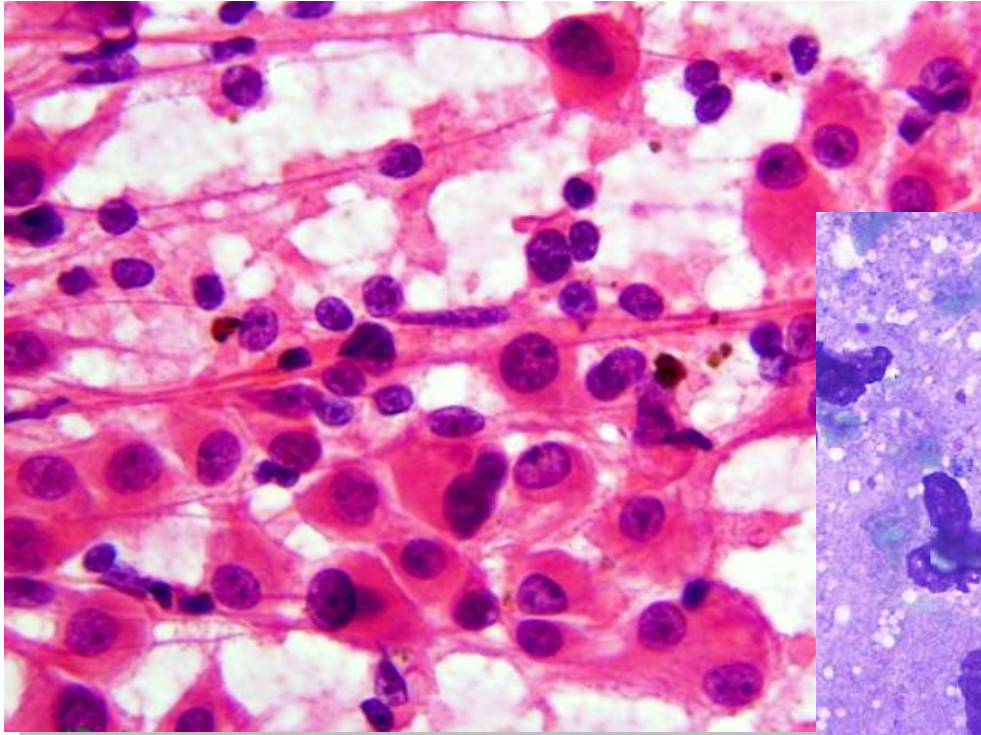
Dificultad de corte

Ganglio centinela

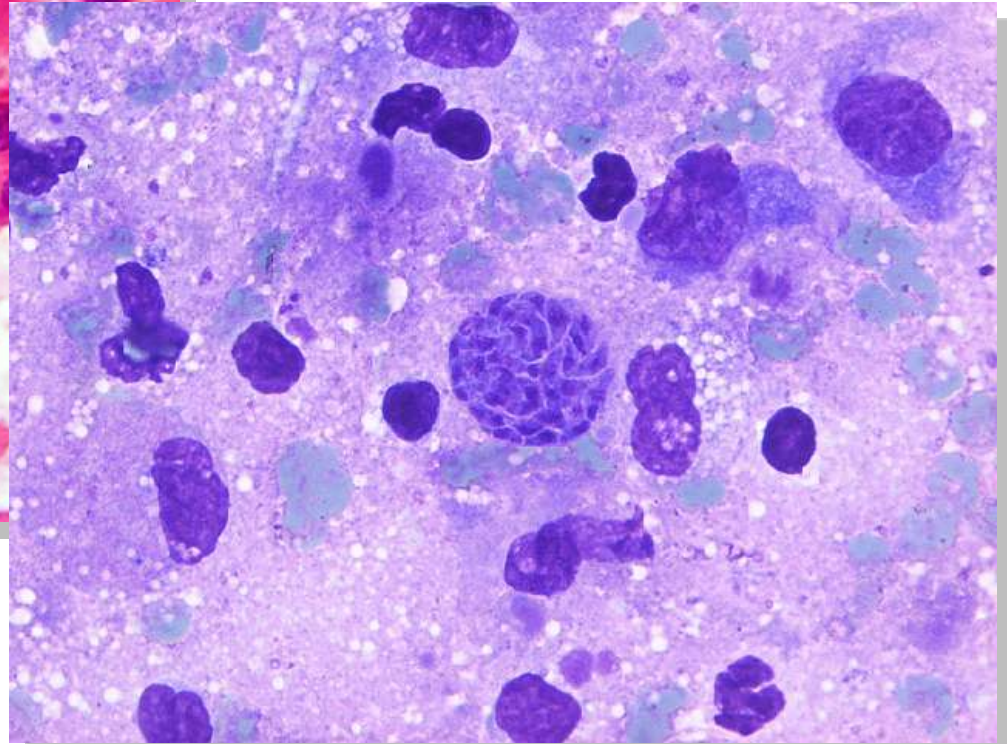
Diagnóstico de infecciones



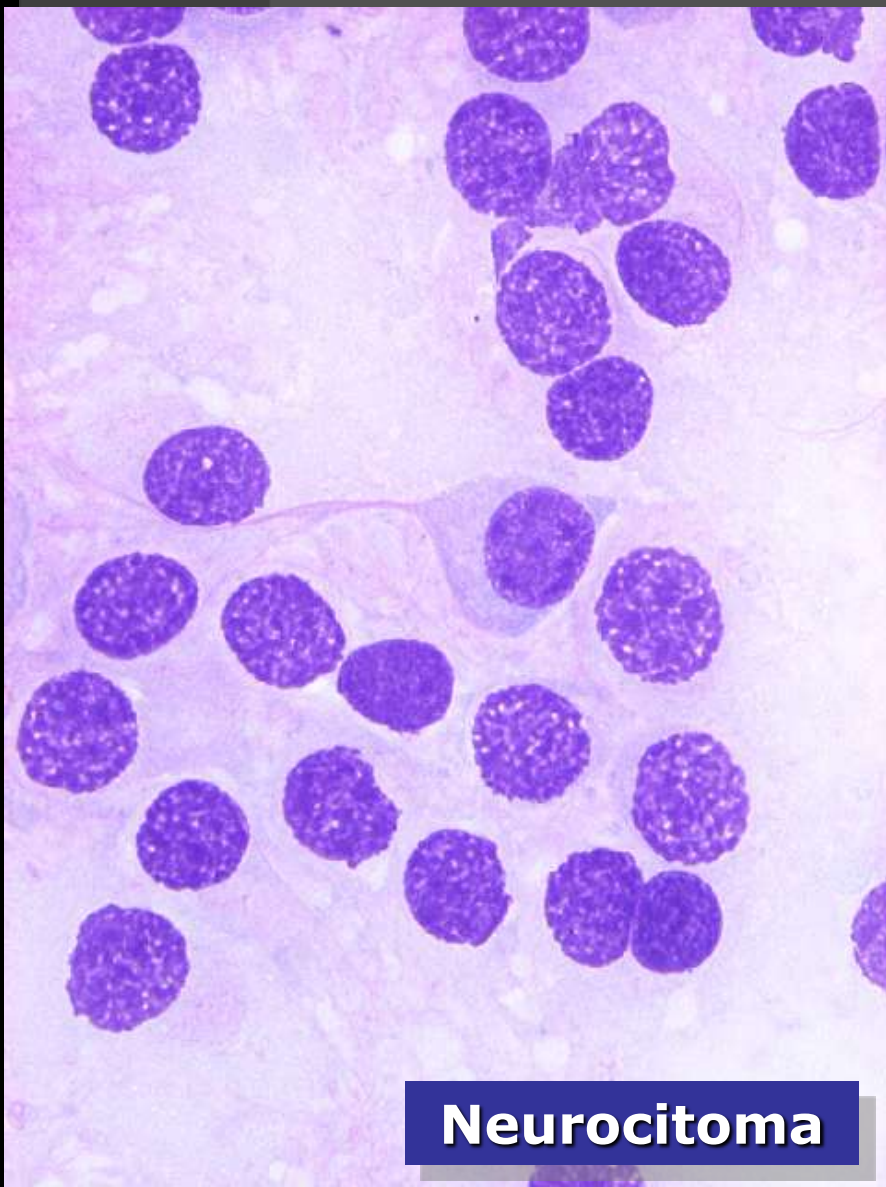
MUESTRAS PEQUEÑAS



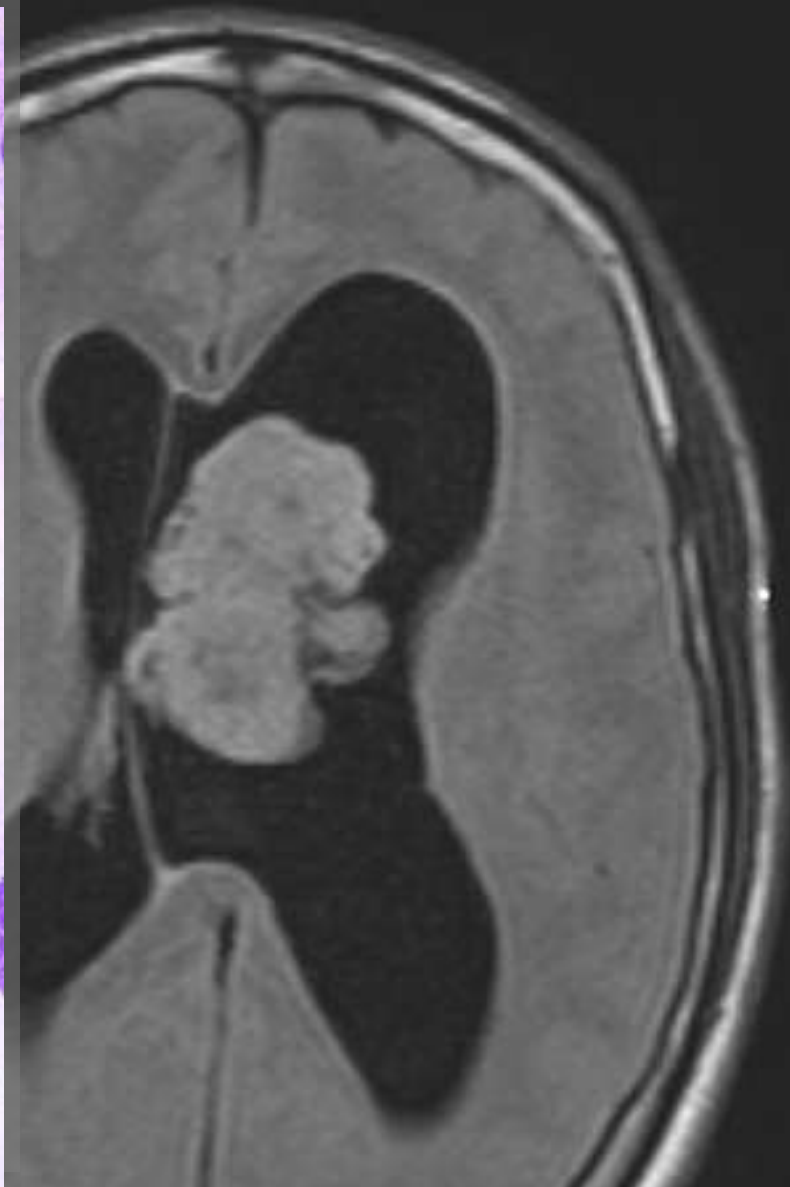
Astrocitoma BG



Toxoplasma

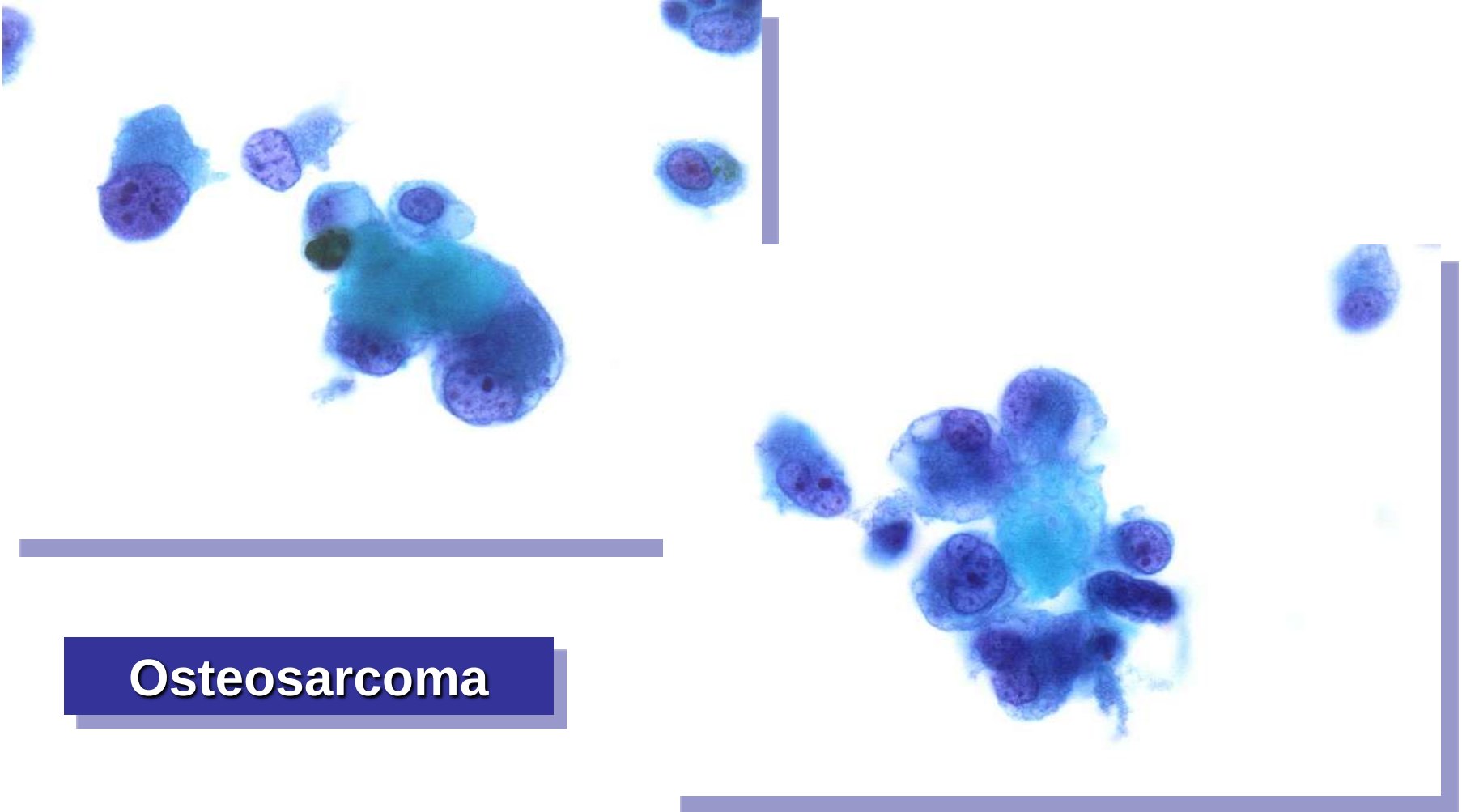


Neurocitoma



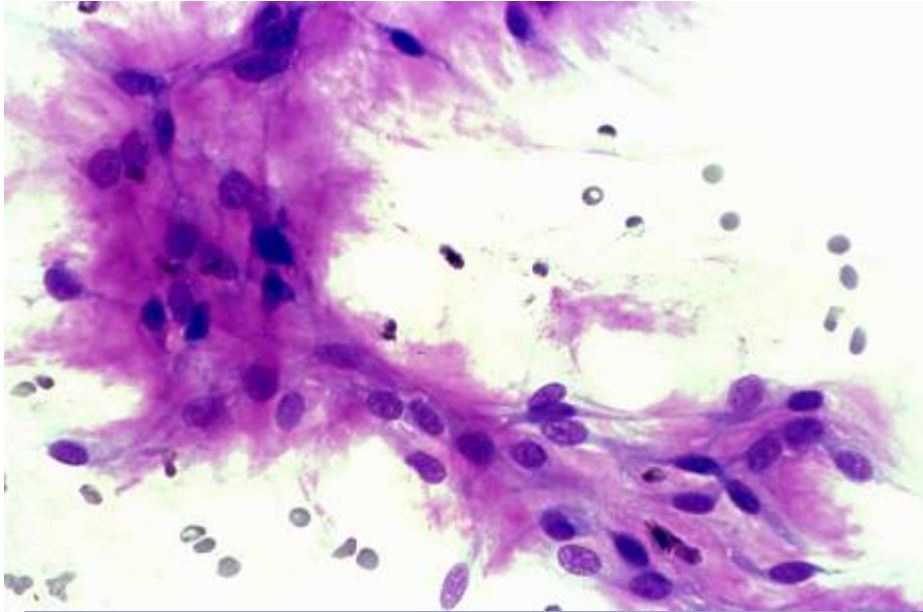
Masa en ventrículo lateral izquierdo, próximo al agujero de Monro, que mide 44 mm de diámetro. Muestra morfología redondeada con áreas quísticas en su interior. La masa condiciona una dilatación de los ventrículos laterales.

DIFICULTAD DEL CORTE HISTOLÓGICO

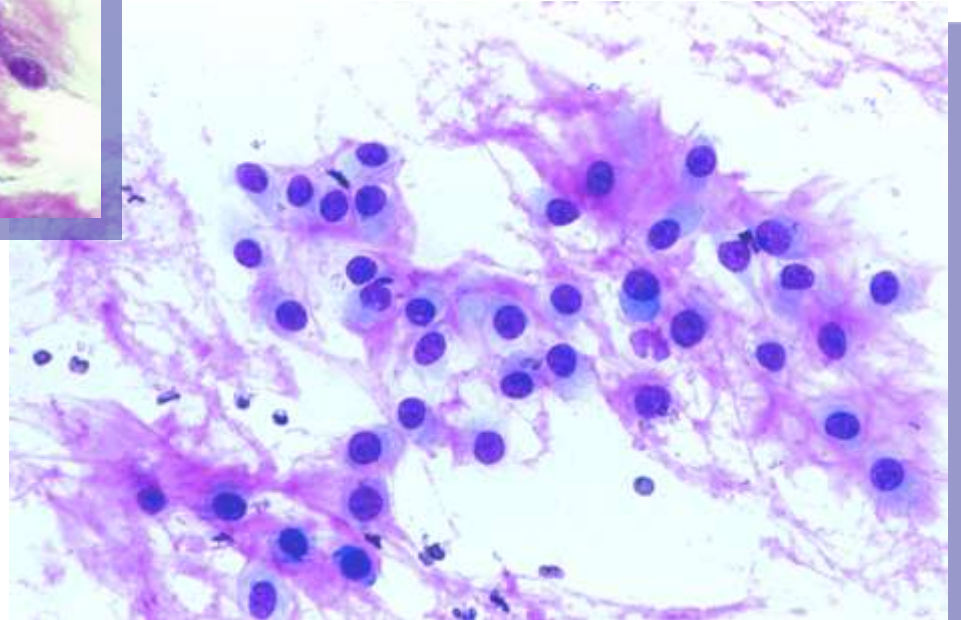


Osteosarcoma

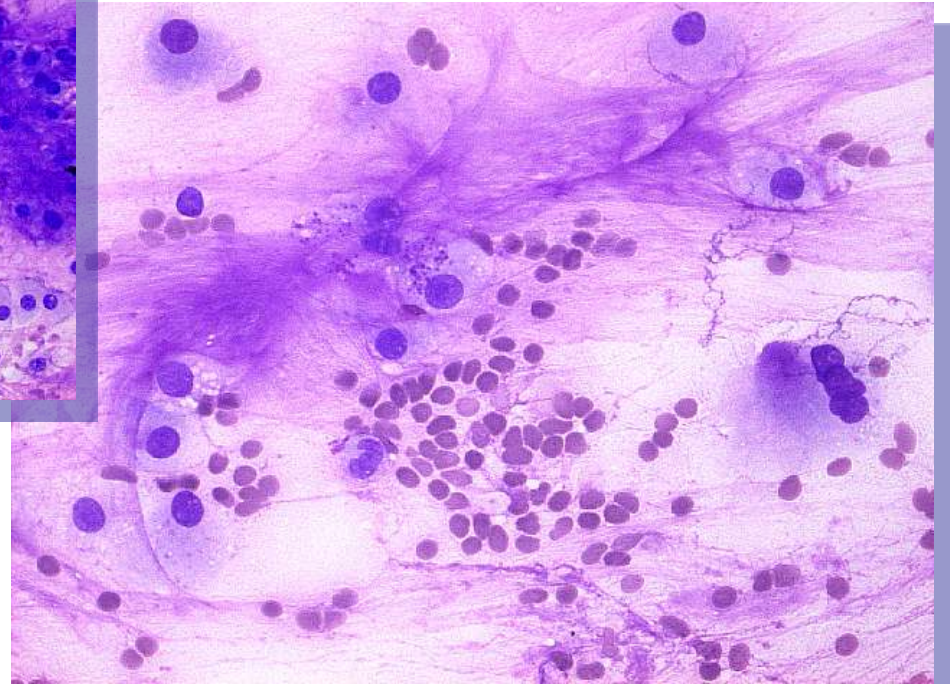
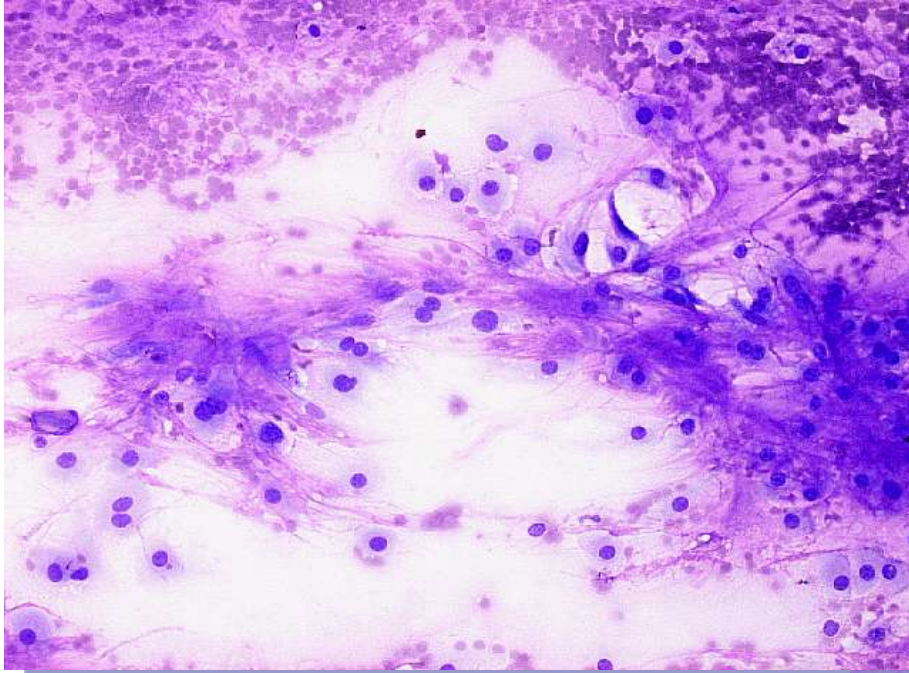
DIFICULTAD DEL CORTE HISTOLÓGICO



Condrosarcoma mixoide EE

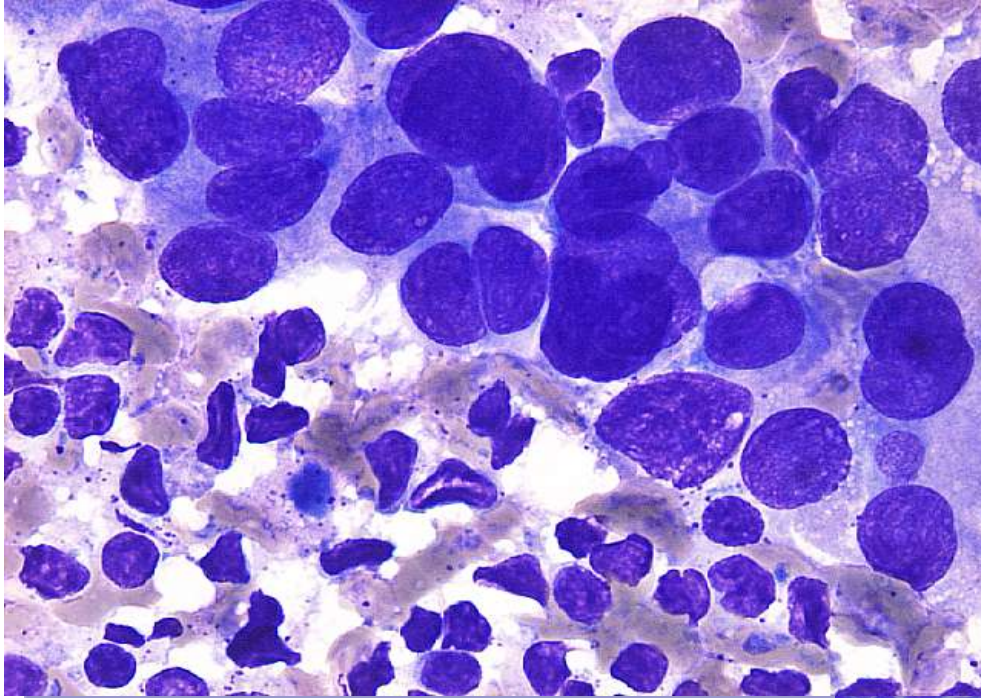


DIFICULTAD DEL CORTE HISTOLÓGICO

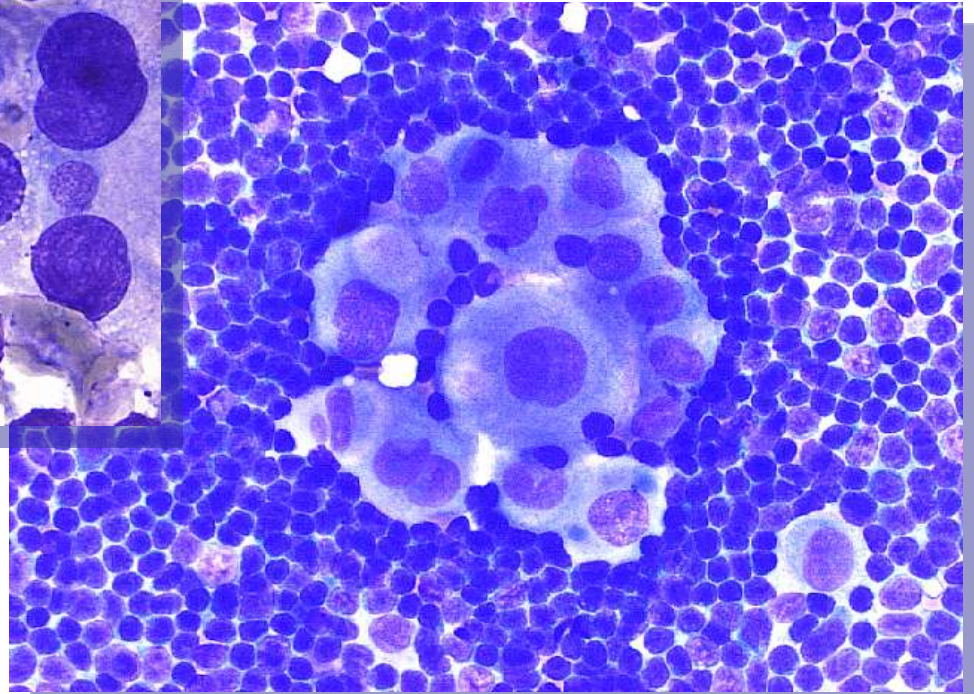


Cordoma

GANGLIO CENTINELA

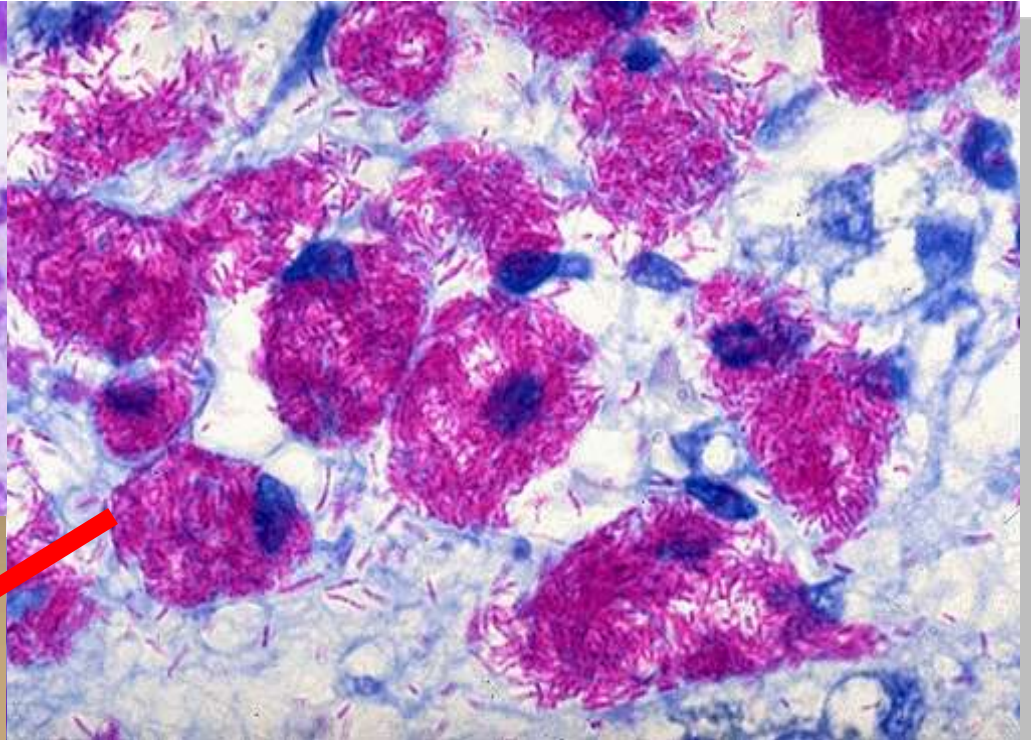
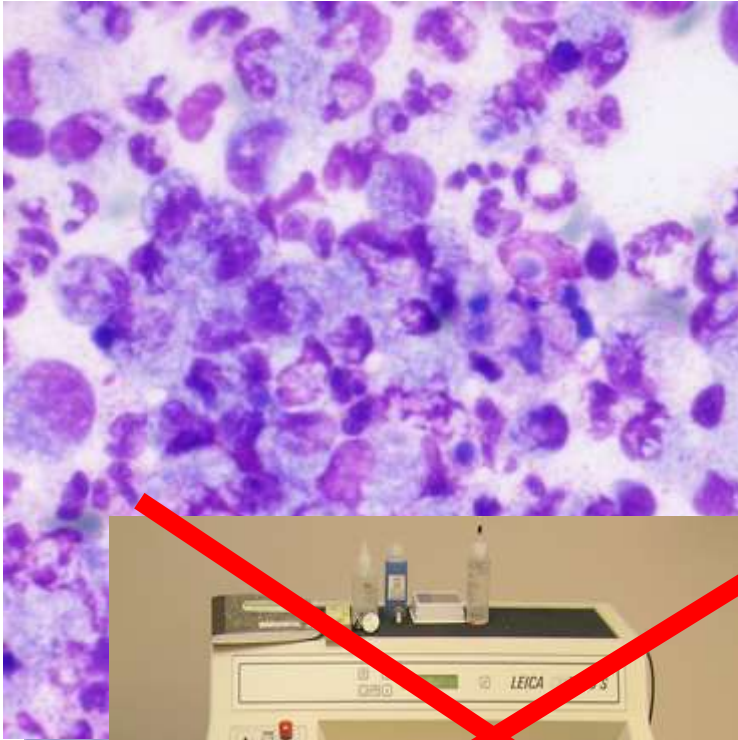


Carcinoma de mama



Melanoma maligno

DIGNÓSTICO DE INFECCIONES



ZN

MÉTODOS DE TINCIÓN

Romanowsky (Diff-Quik®)

Papanicolaou (Pap-Quick®)

Hematoxylina & eosina

Azul de metileno (wet/air-dried smears)

Cristal violeta (wet/air-dried smears)

Azul de Toloudin,.....



Diff-Quik®



Pap-Quick®

MÉTODO DE ROMANOWSKY

Muestras secadas al aire

Rapido (<1 minuto)

Mejora la visualización

Coloide

Fondo tigroide

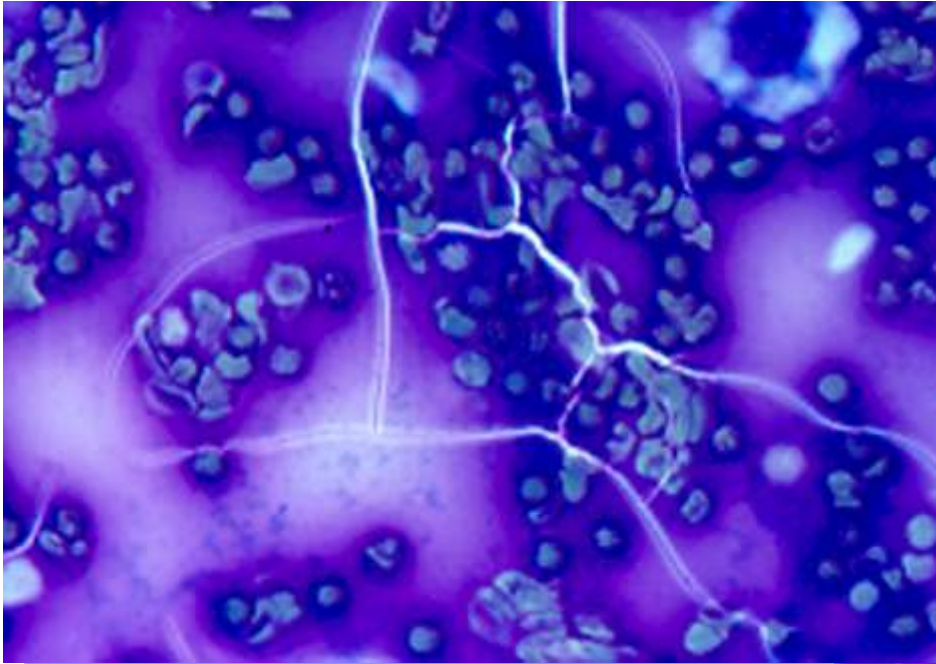
Membrana basal

Fondo mixoid o fibromixoid

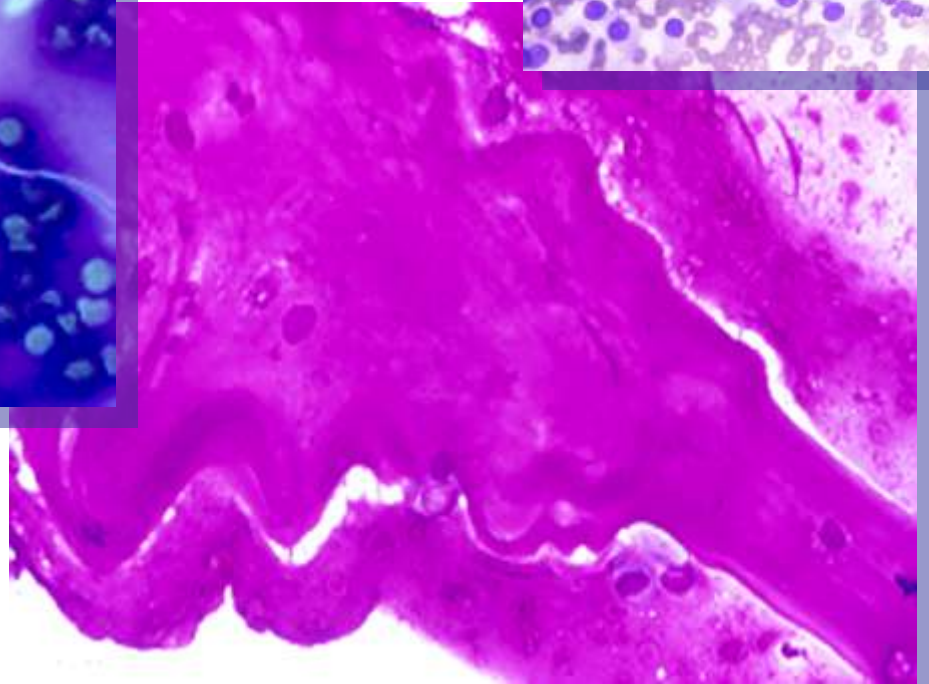
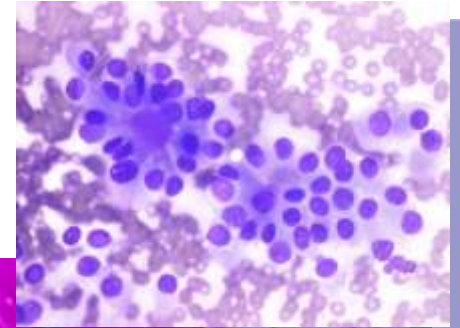
Cuerpos linfoglandulares



COLOIDE

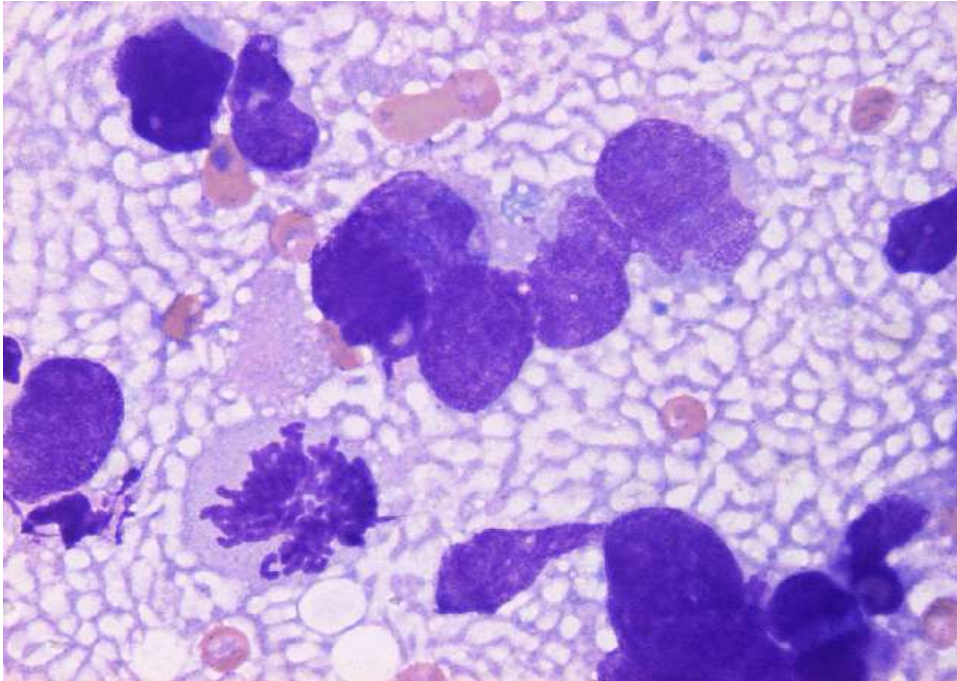


Bocio

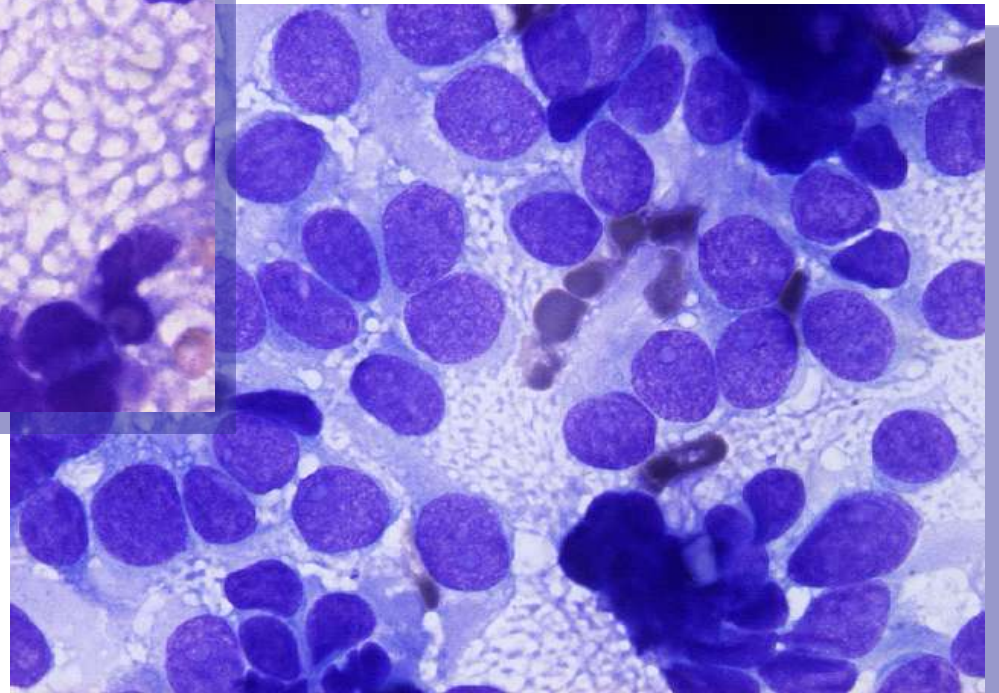


Carcinoma papilar

FONDO TIGROIDE

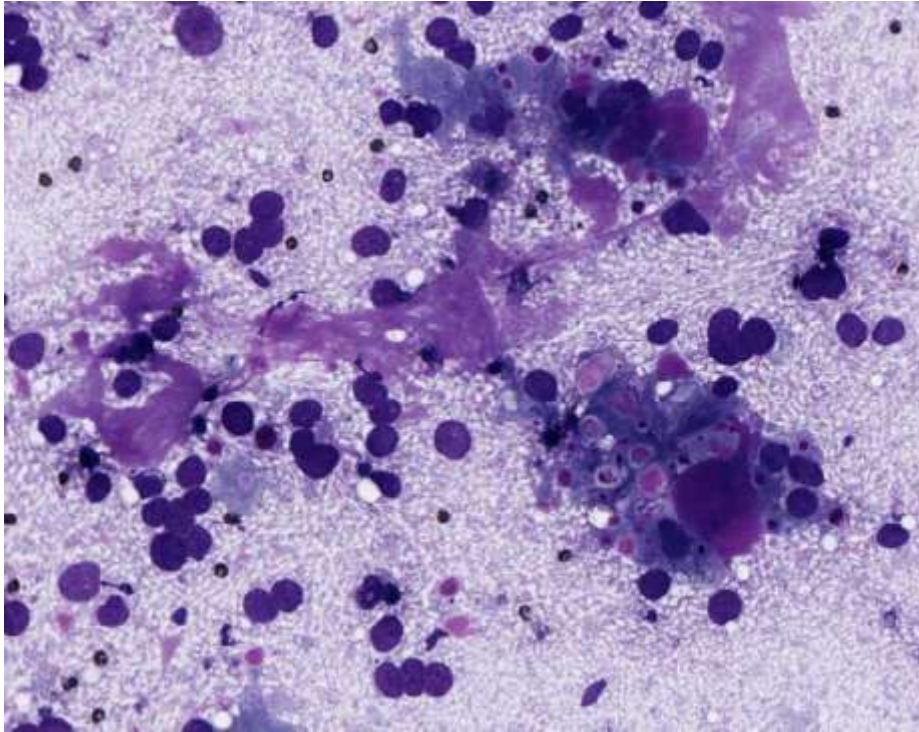


Rabdomiosarcoma



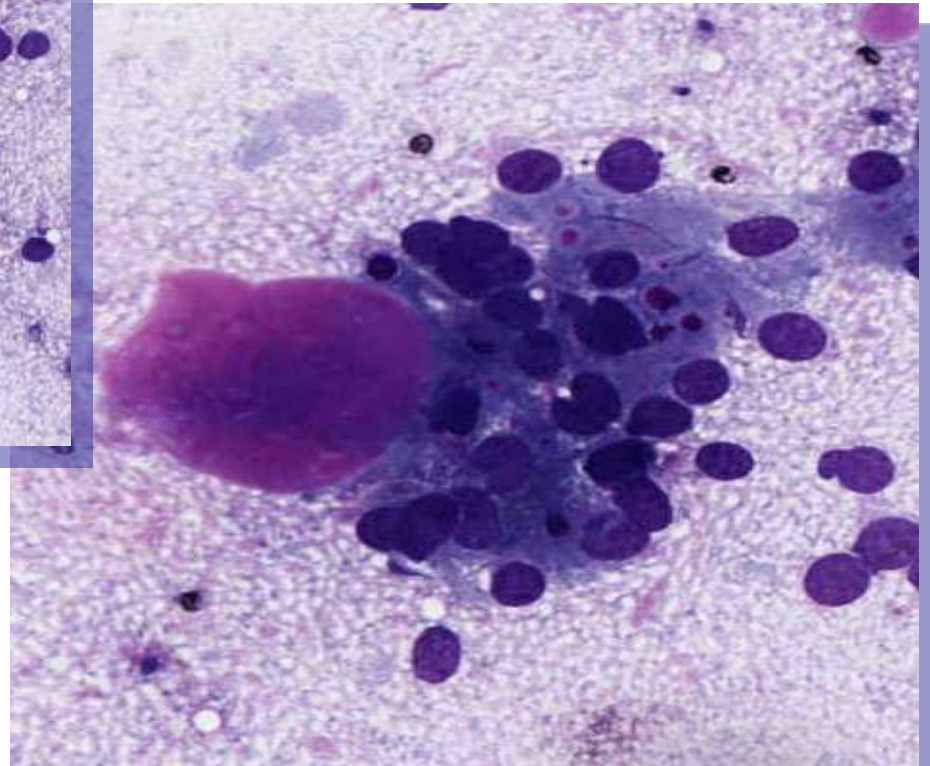
Sarcoma de Ewing

MEMBRANA BASAL

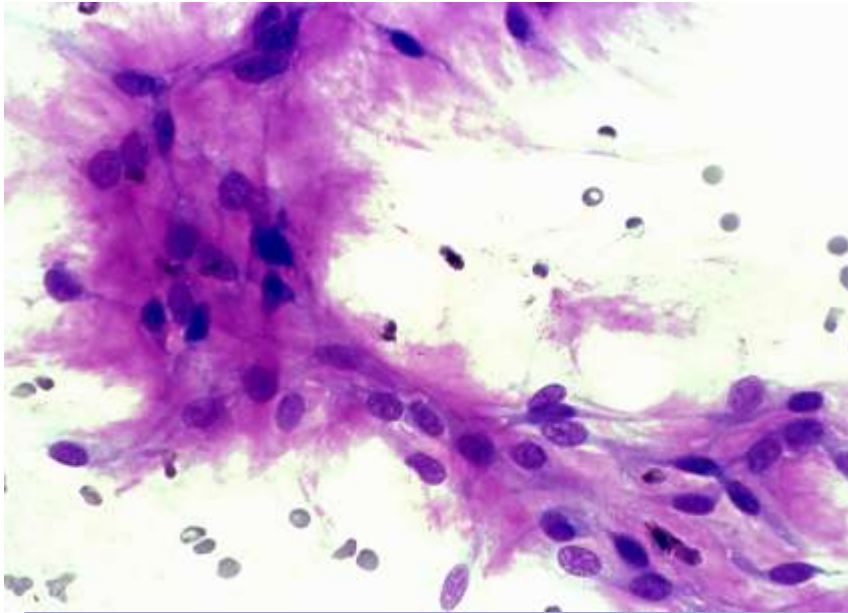


**Carcinoma de células claras de
ovario**

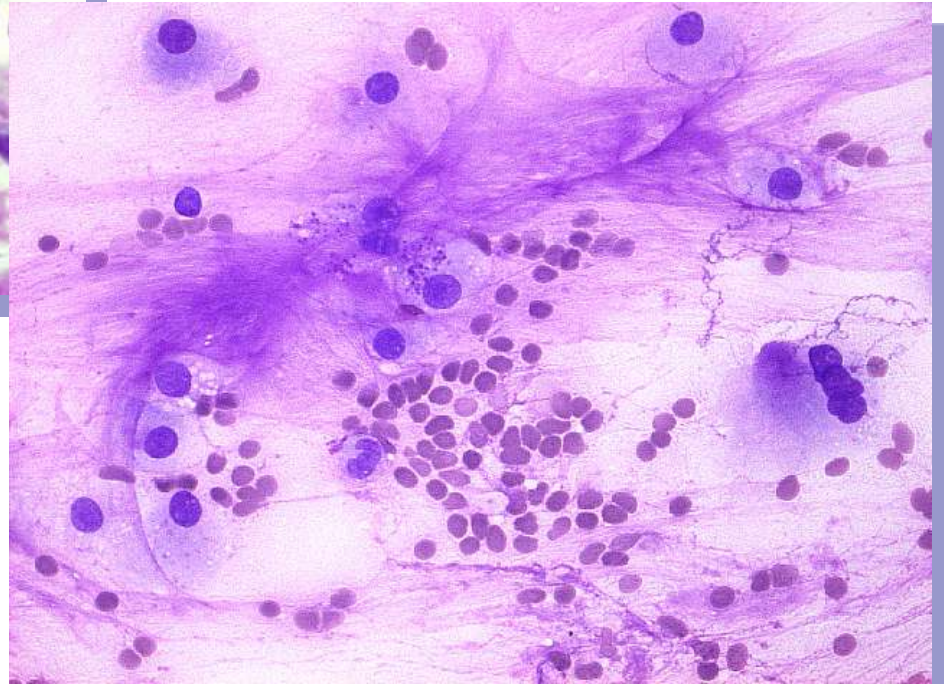
**(membrana basal y fondo
tigroide)**



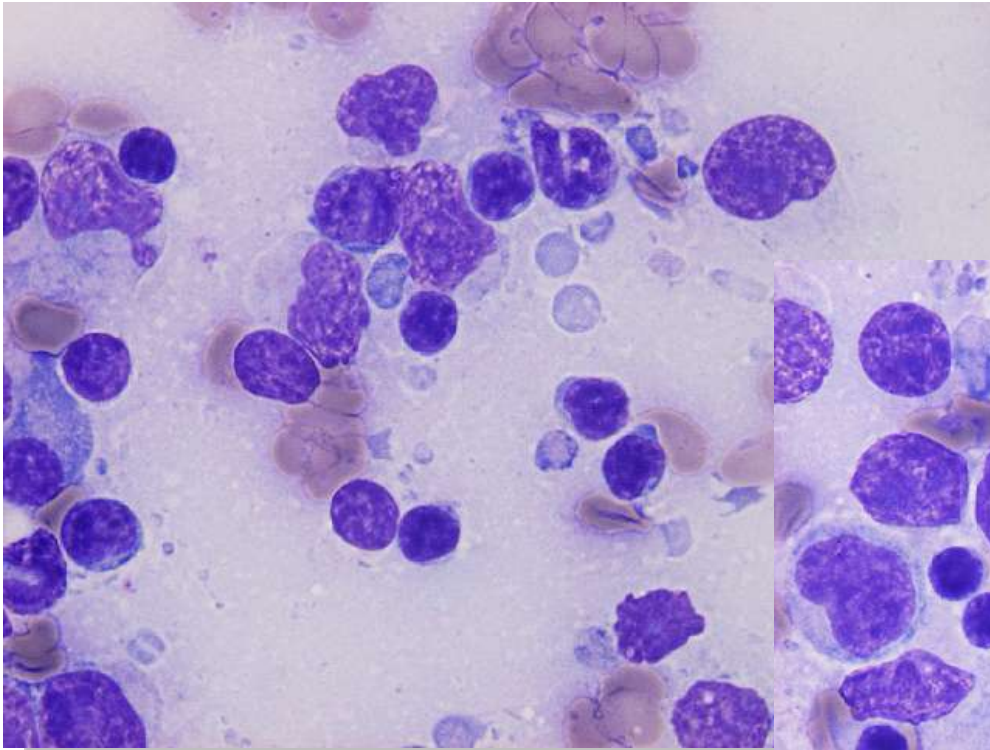
FONDO MIXOIDE/FIBROMIXOIDE



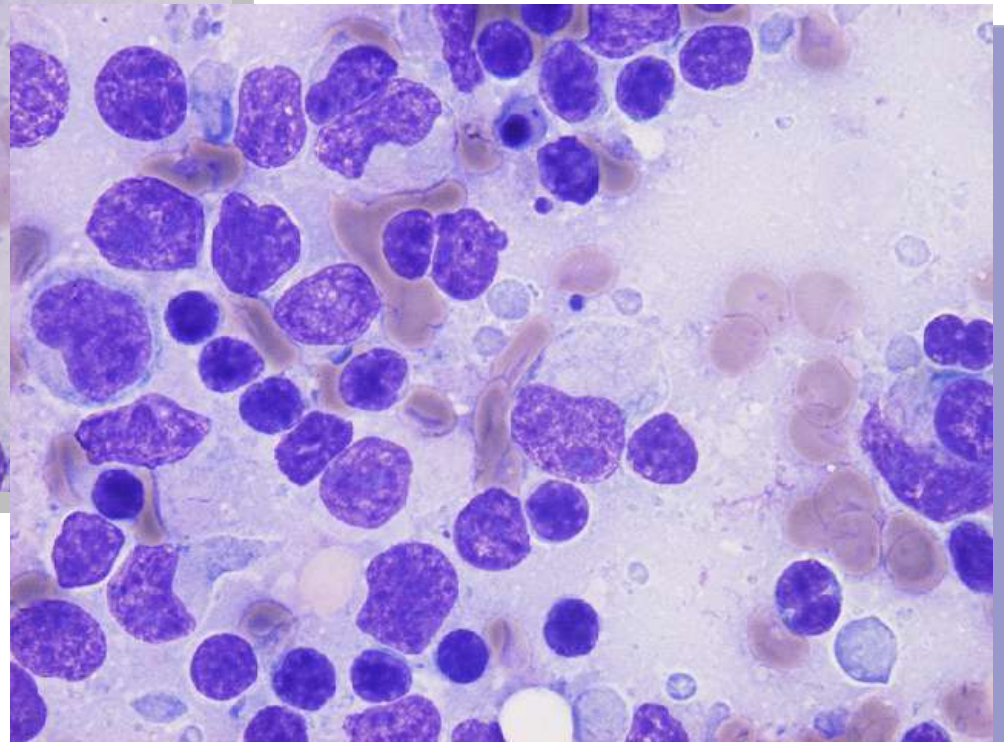
Condrosarcoma mixoide EE y
Cordoma



CUERPOS LINFOGLANDULARES



Linfoma de alto grado



MÉTODO DE PAPANICOLAOU

Muestras humedas (etanol 95%)

Rapido (2 minutes)

Detalle nuclear

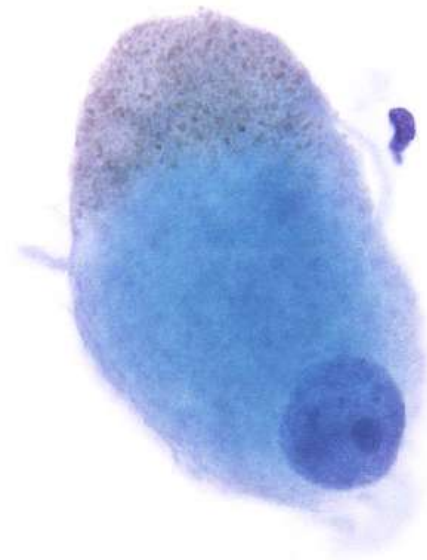
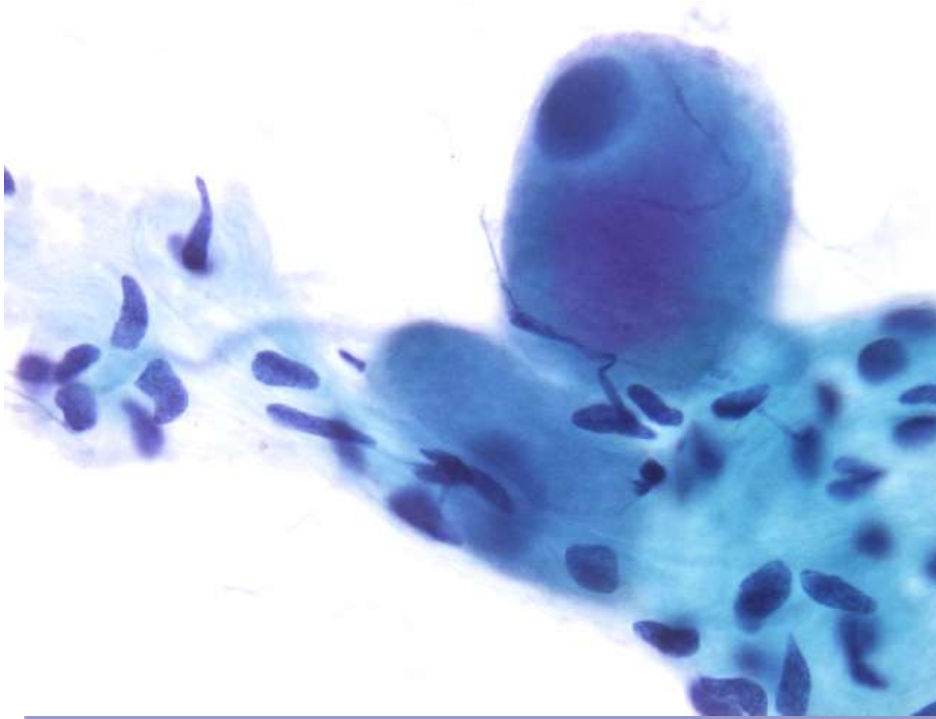
Dificulta la visión del fondo

Muestras secadas al aire (Pap-Quick®)

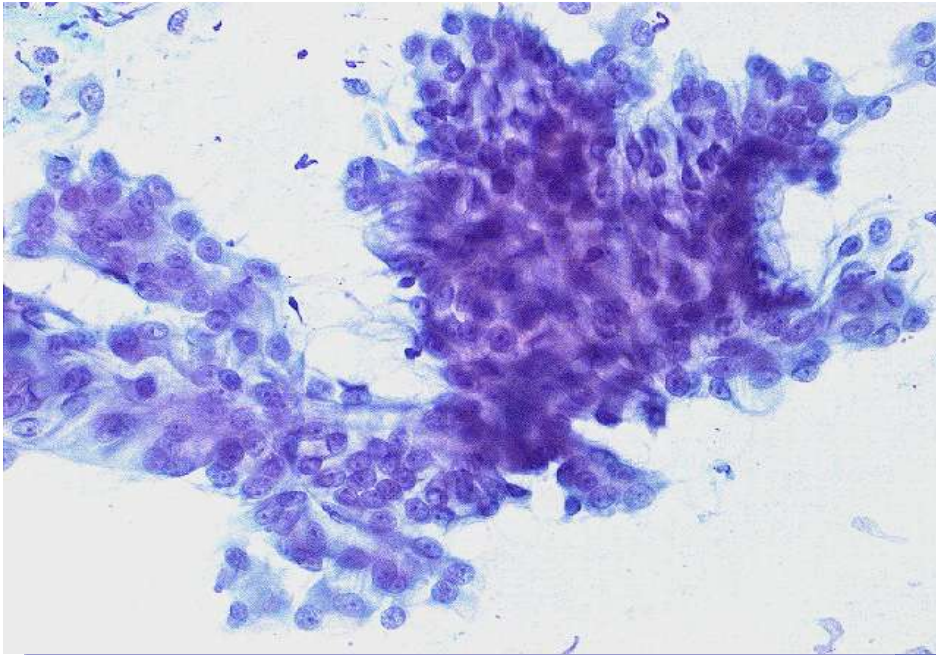


PAPANICOLAOU

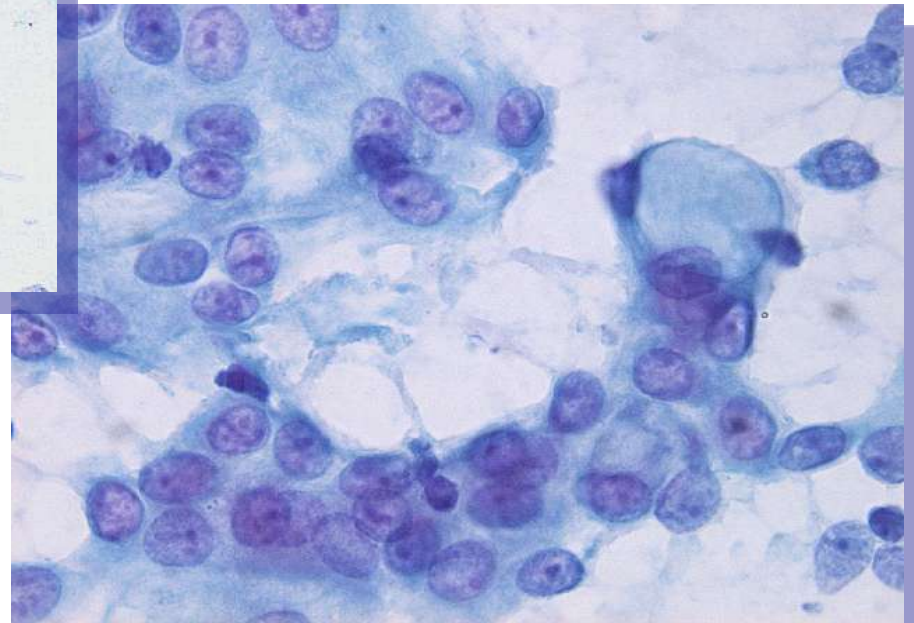
**Ganglioneuroma
retroperitonel. Pap-Quick**



PAPANICOLOU



**Tumor adenomatoide
Pap-Quik**



PAPANICOLAOU



**Carcinoma papilar de
tiroides**



**Papanicolaou rápido. Muestra
fijada al aire (Pap-Quick®)**

MÉTODOS DE TOMA DE MUESTRAS

Raspado

Improntas

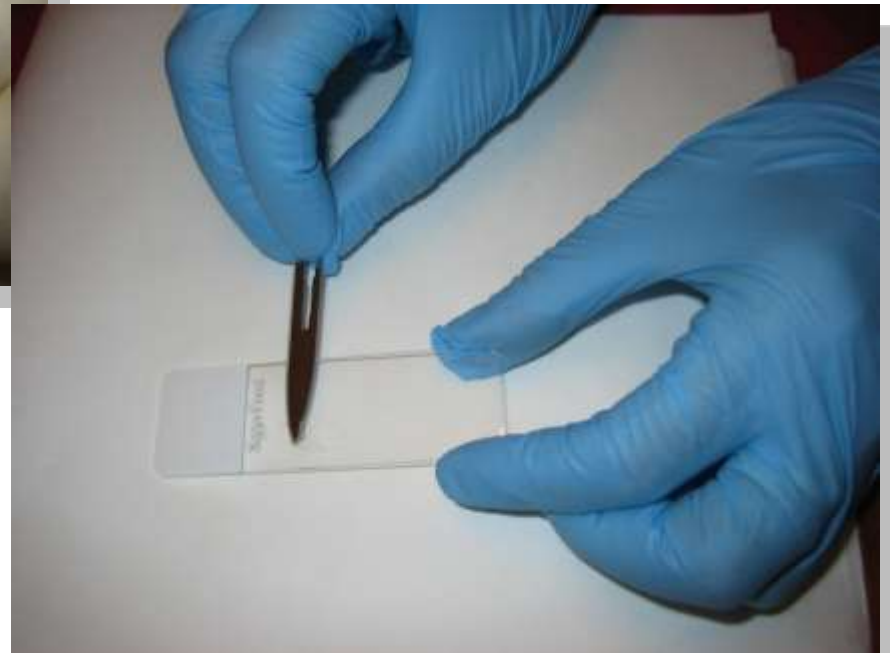
Aplastamiento-extensión



RASPADO



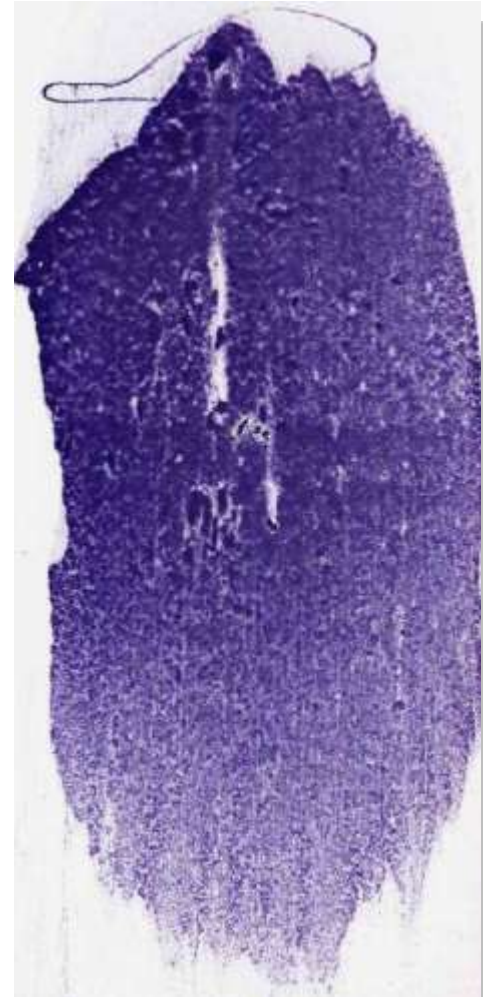
La superficie se *raspa* con la hoja de un bisturí



RASPADO



...la muestra se extiende con otro cubre-
objetos



Diff-Quik®

IMPRONTA

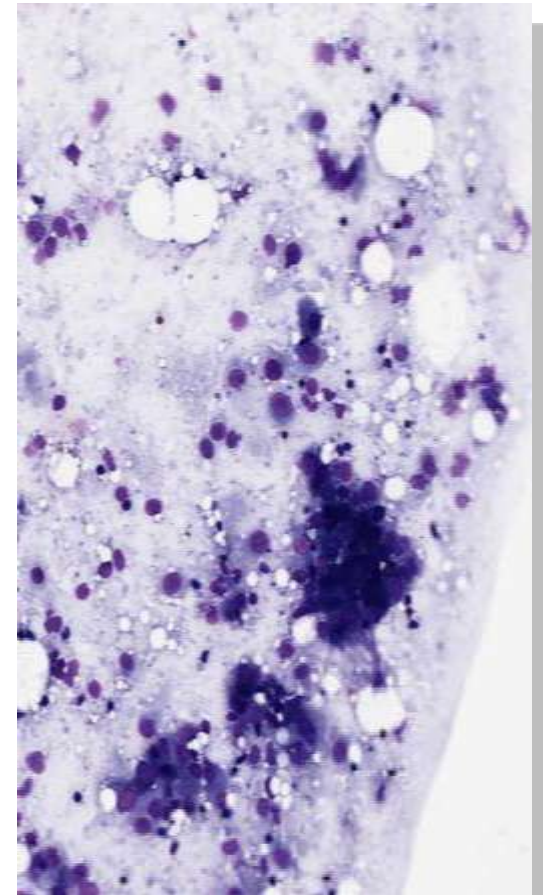
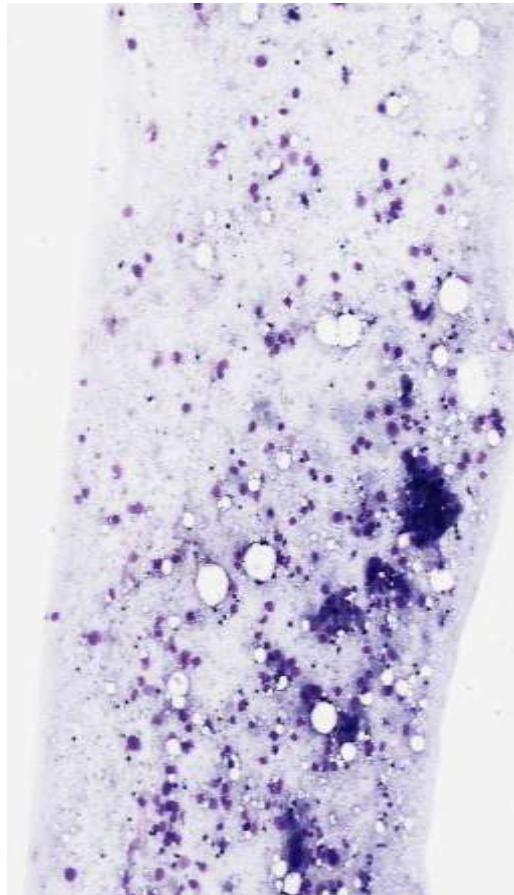
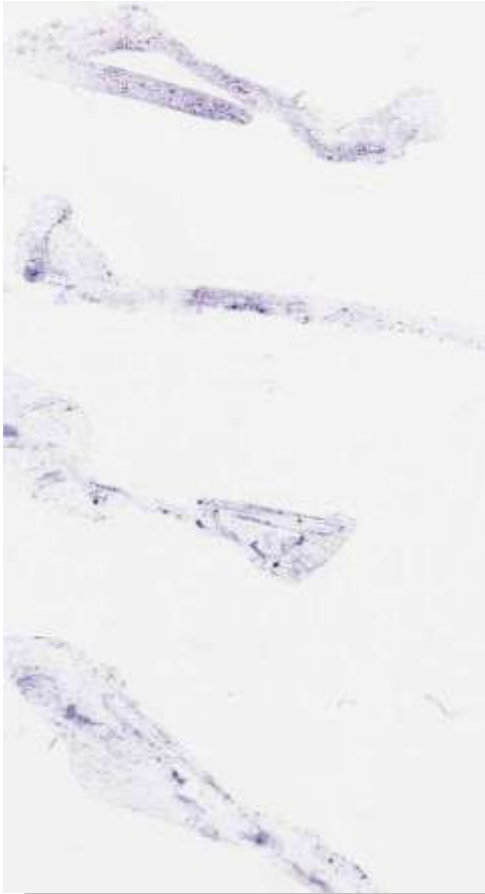


Presión con un porta-objeto sobre la superficie de la muestra



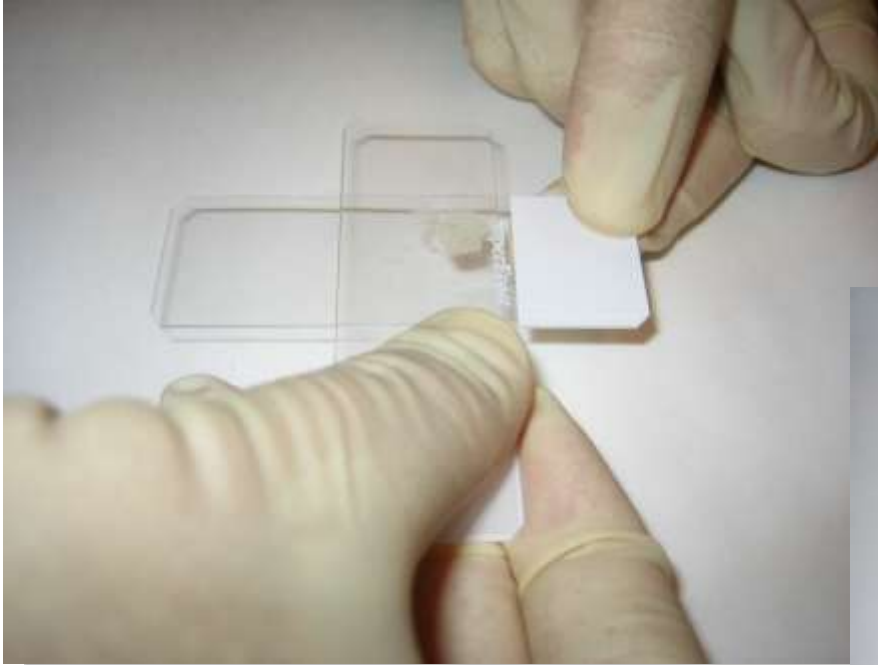
Ganglio linfático

IMPRONTA



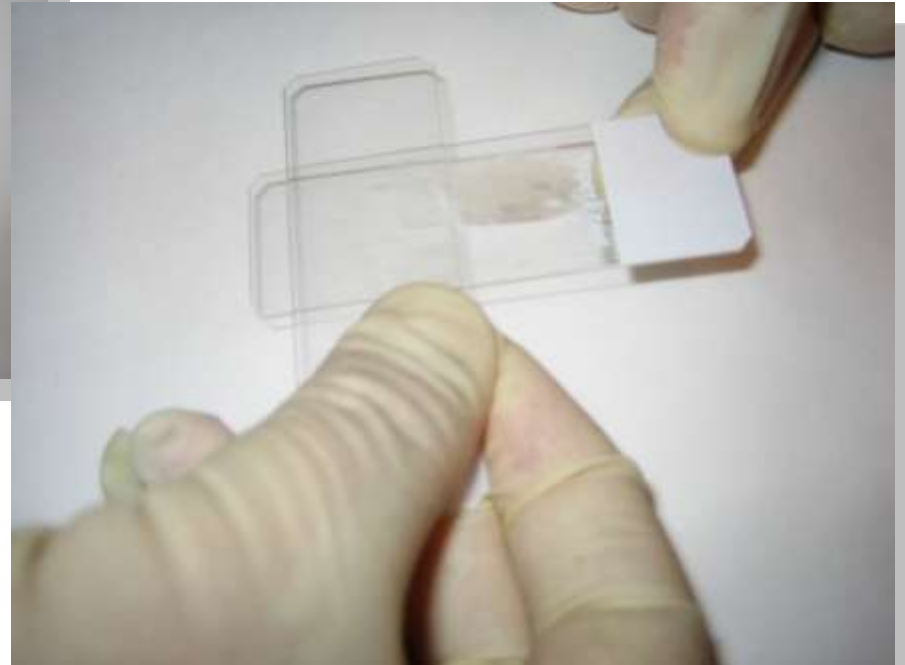
BAG de mama

APLASTAMIENTO EXTENSIÓN



La muestra se deposita en el extremo superior del porta-objeto

Un segundo porta-objeto se sitúa sobre la muestra. Se aplasta suavemente y se extiende



APLASTAMIENTO EXTENSIÓN

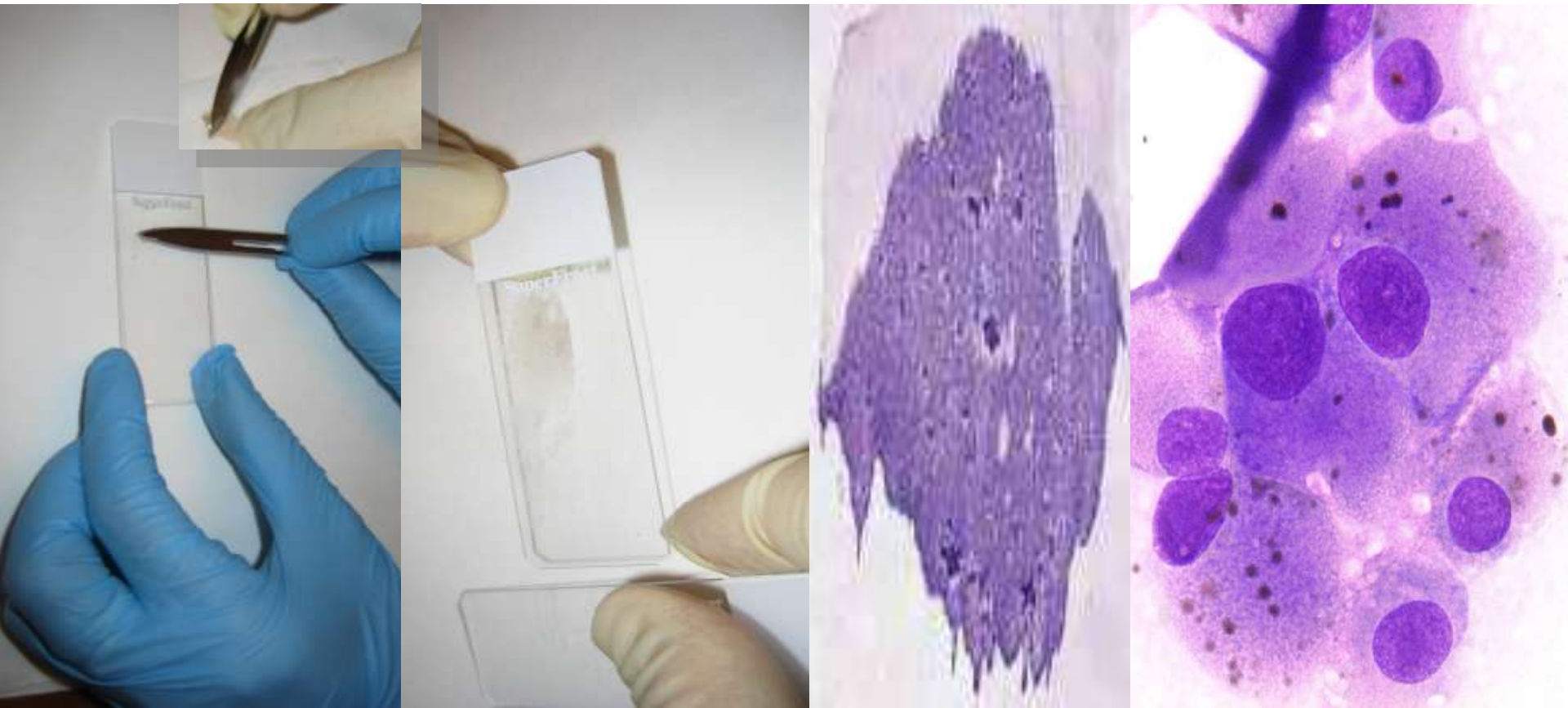


La muestra se extiende con otro porta-objeto



Pap-Quick®

CITOLOGÍA INTRAOPERATORIA



Gracias!