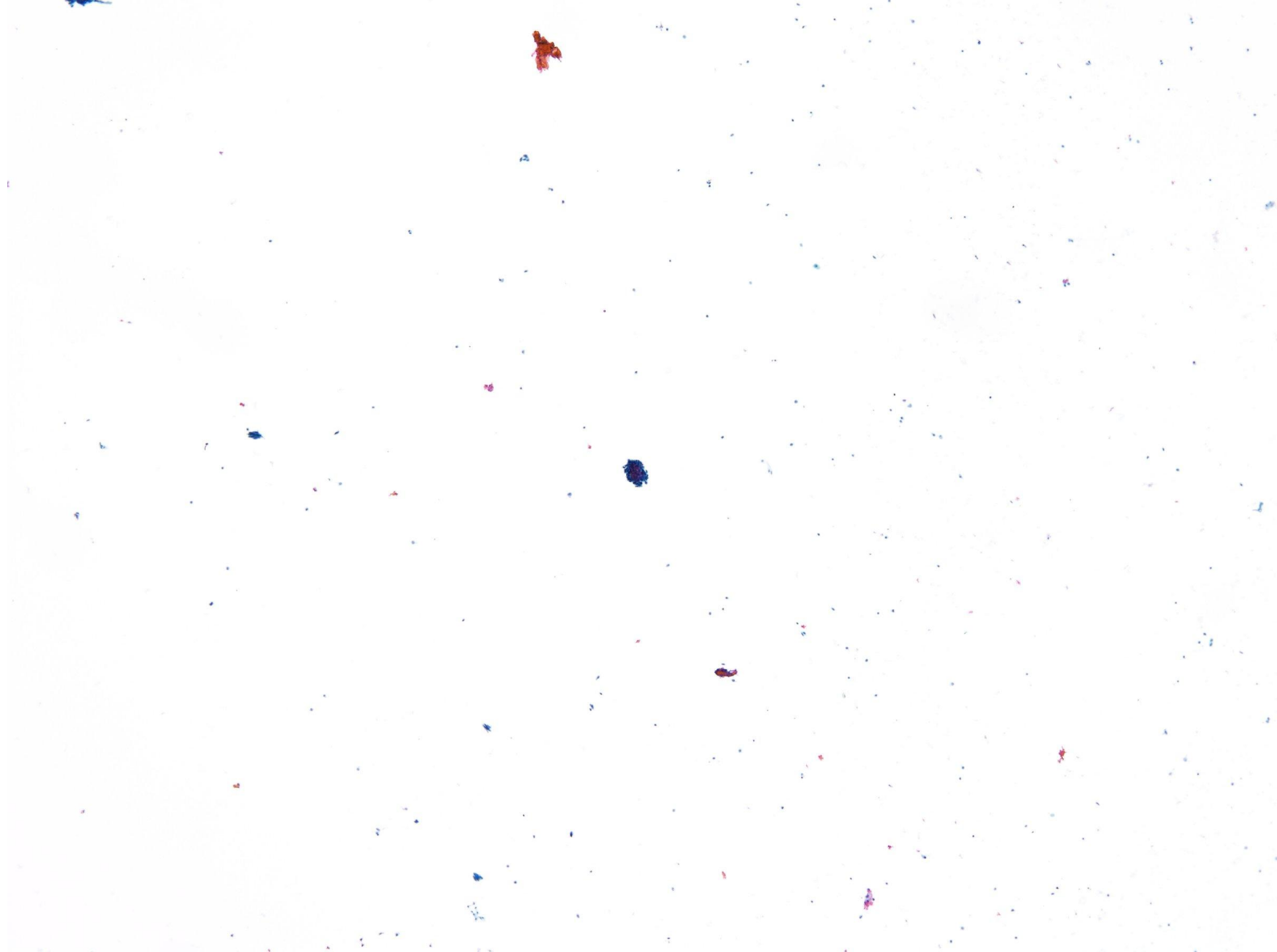


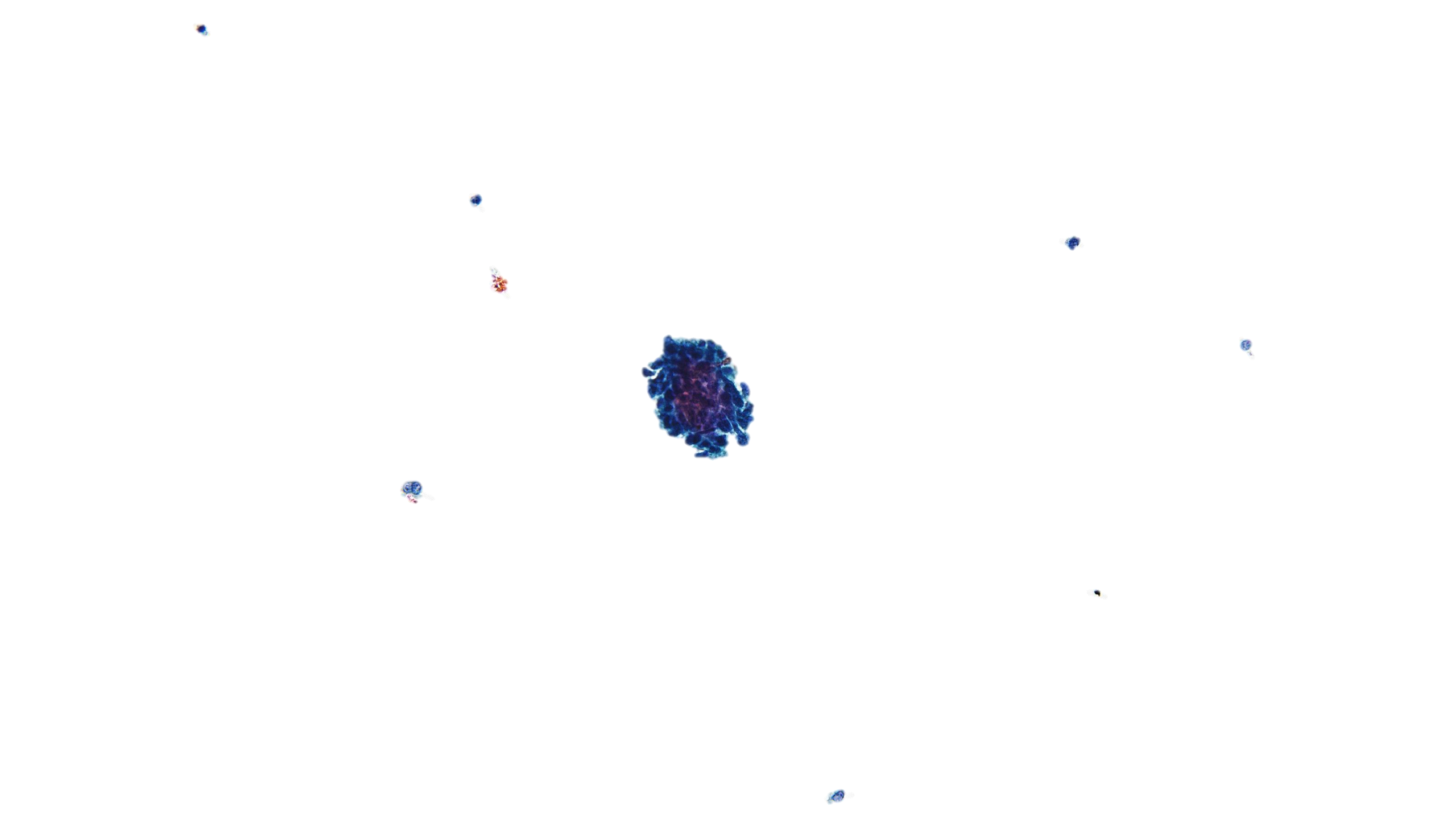
KCP 1109

양산부산대학교병원
전공의 강윤경

Clinical information

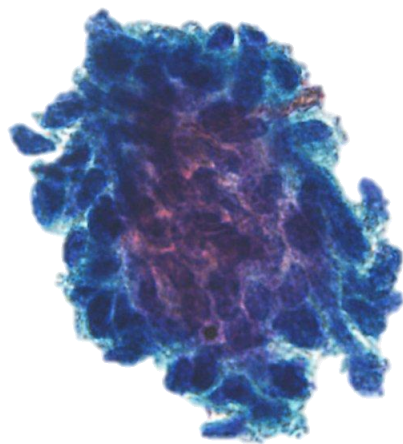
- 57세 여자
- 2021년도 난소 종양으로 우측 난소 절제술
- 추적 관찰 검사에서 다발성 복막 종괴 관찰
- 복막 종괴에 대한 복강경 절제 생검 중 시행한
peritoneal washing 검체

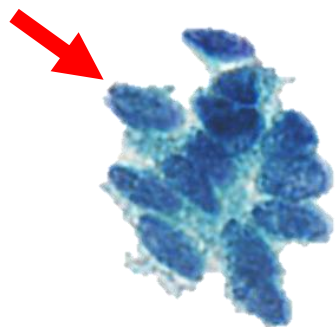


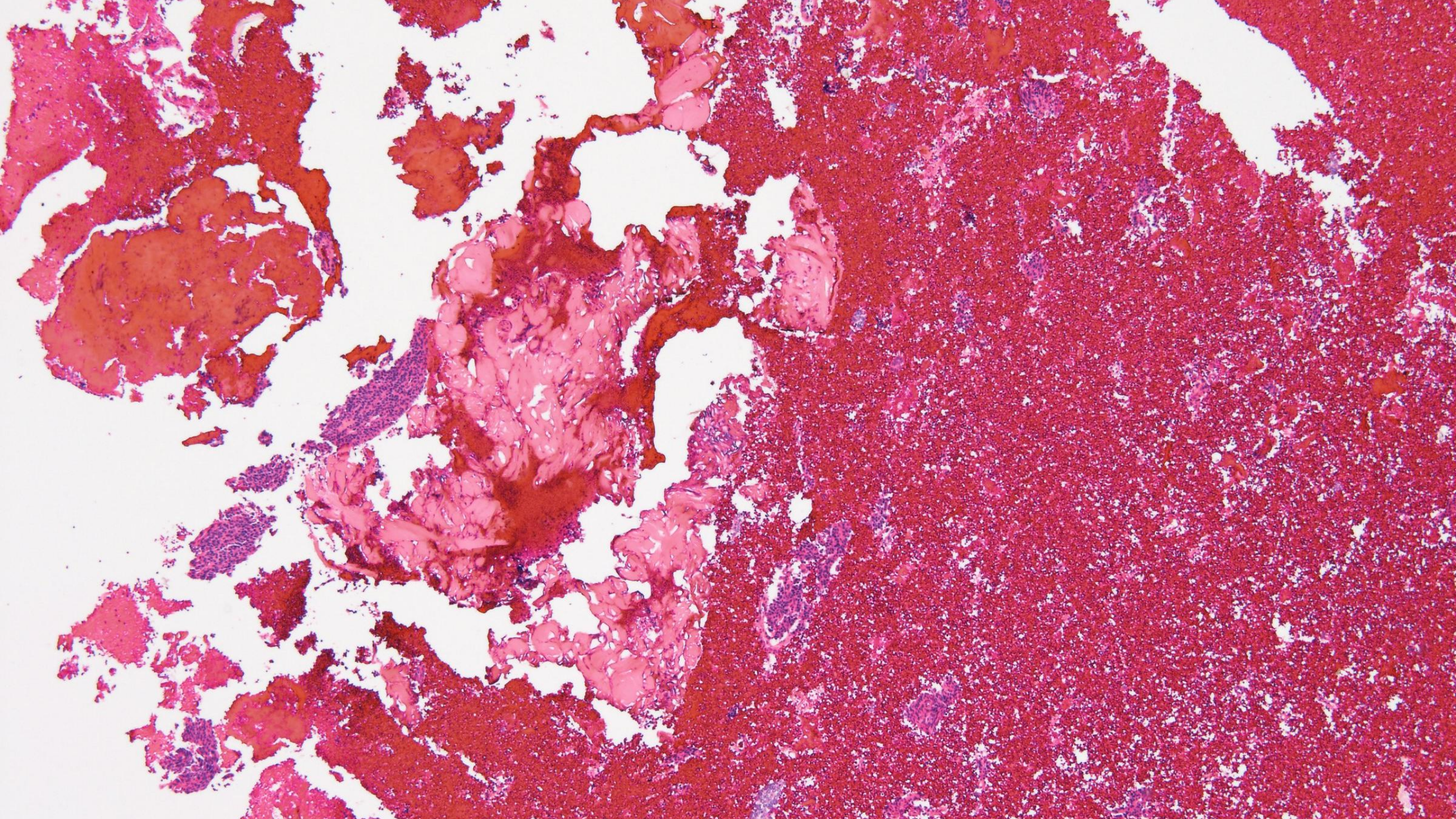


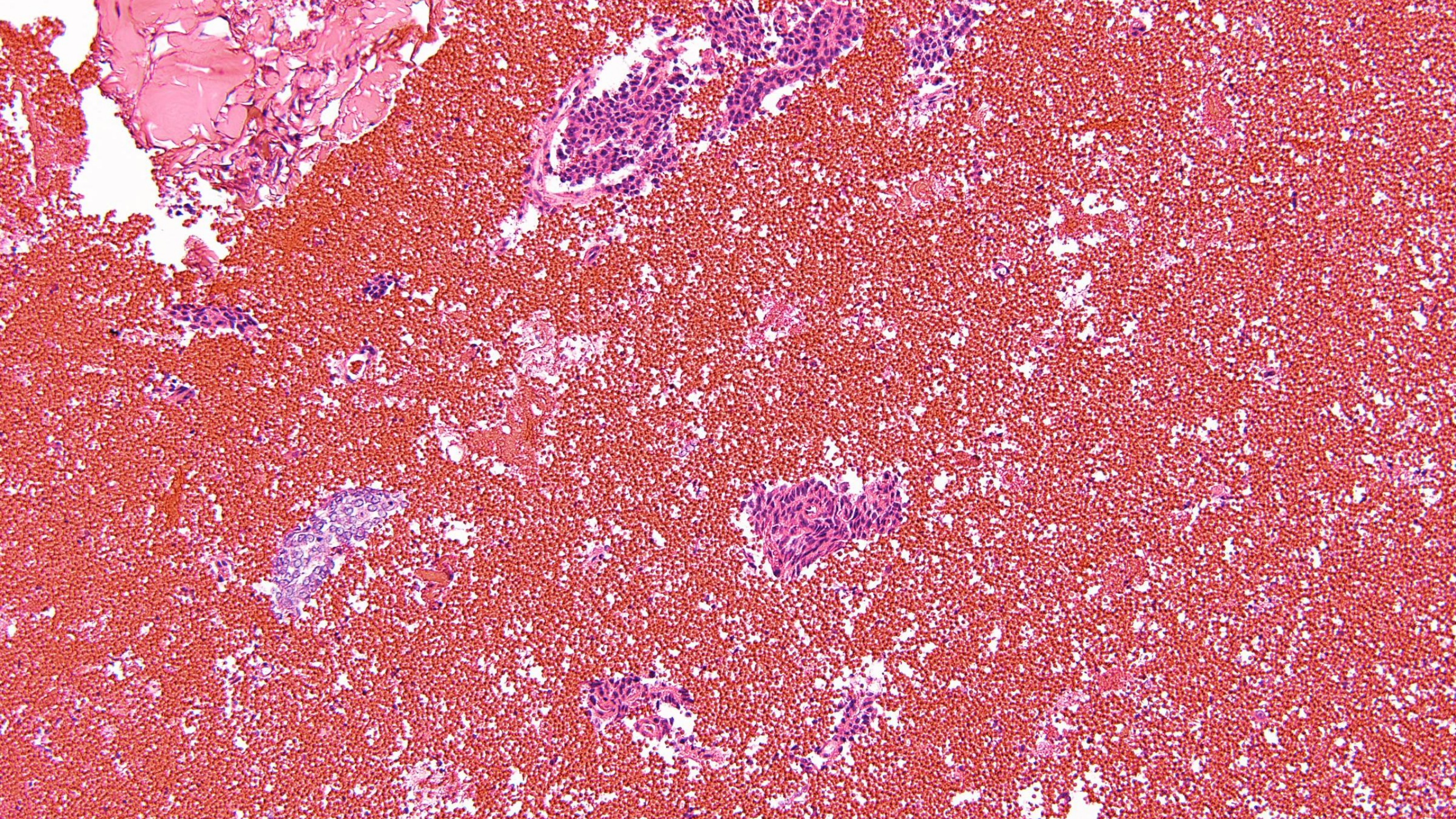


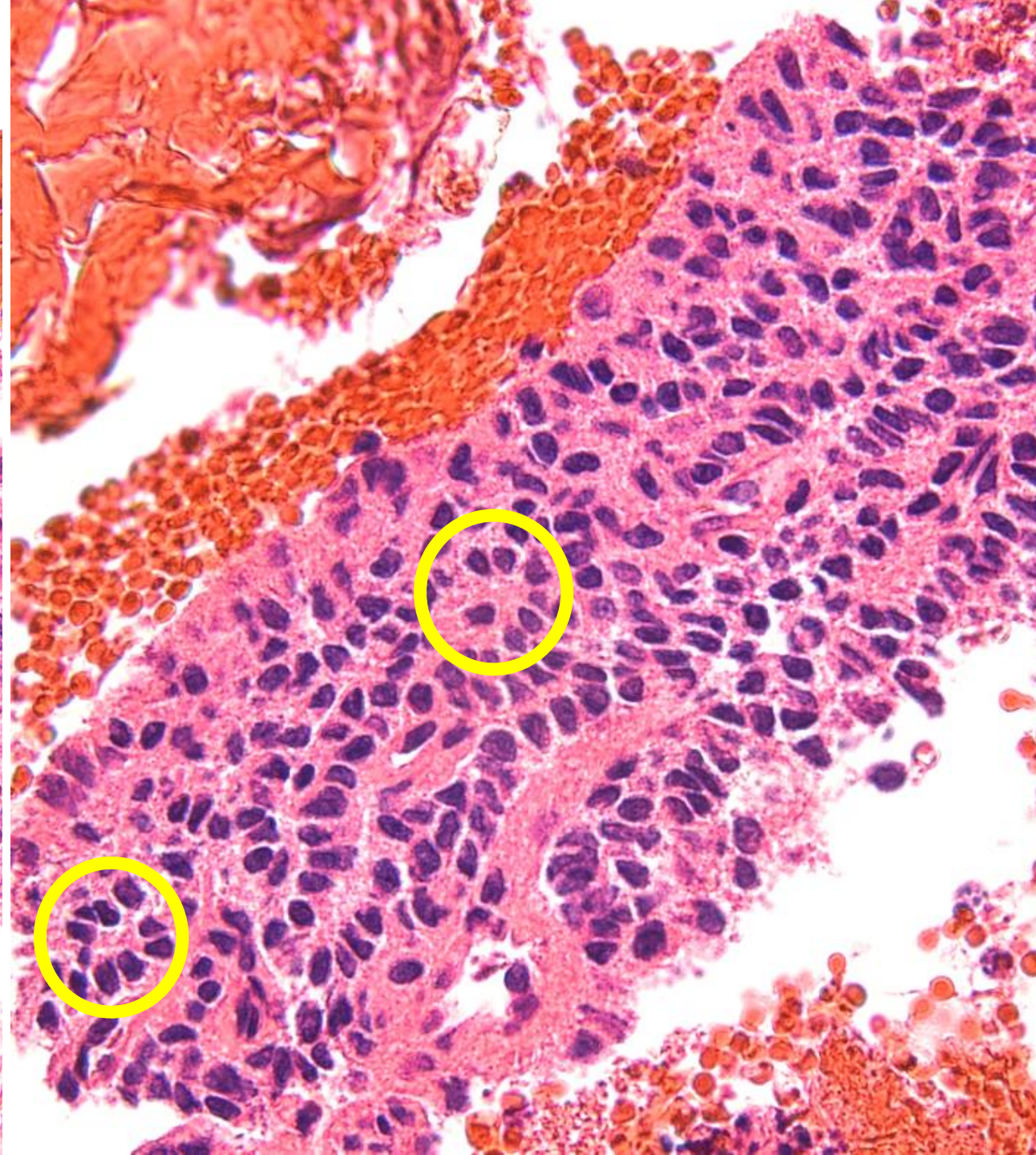
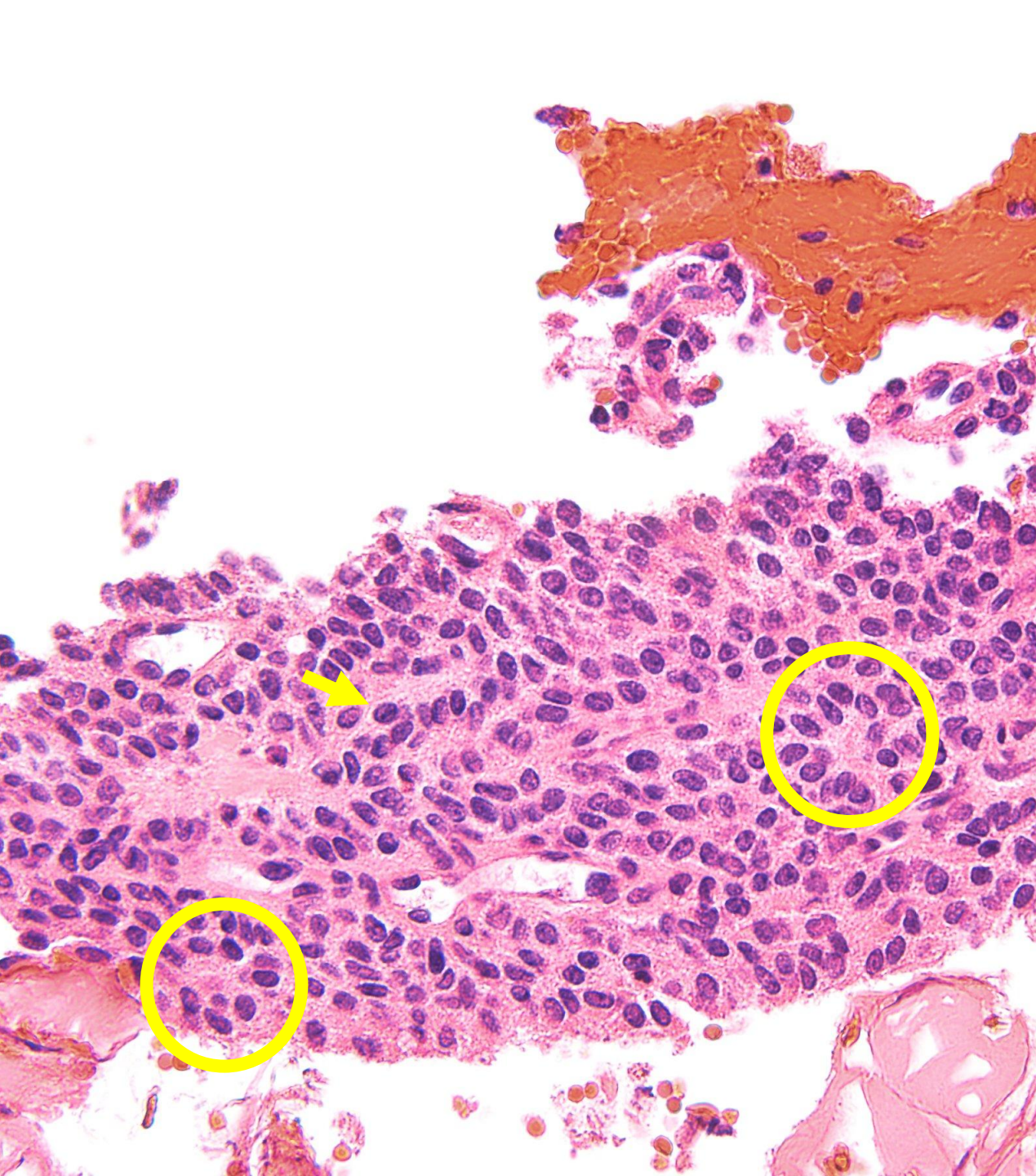
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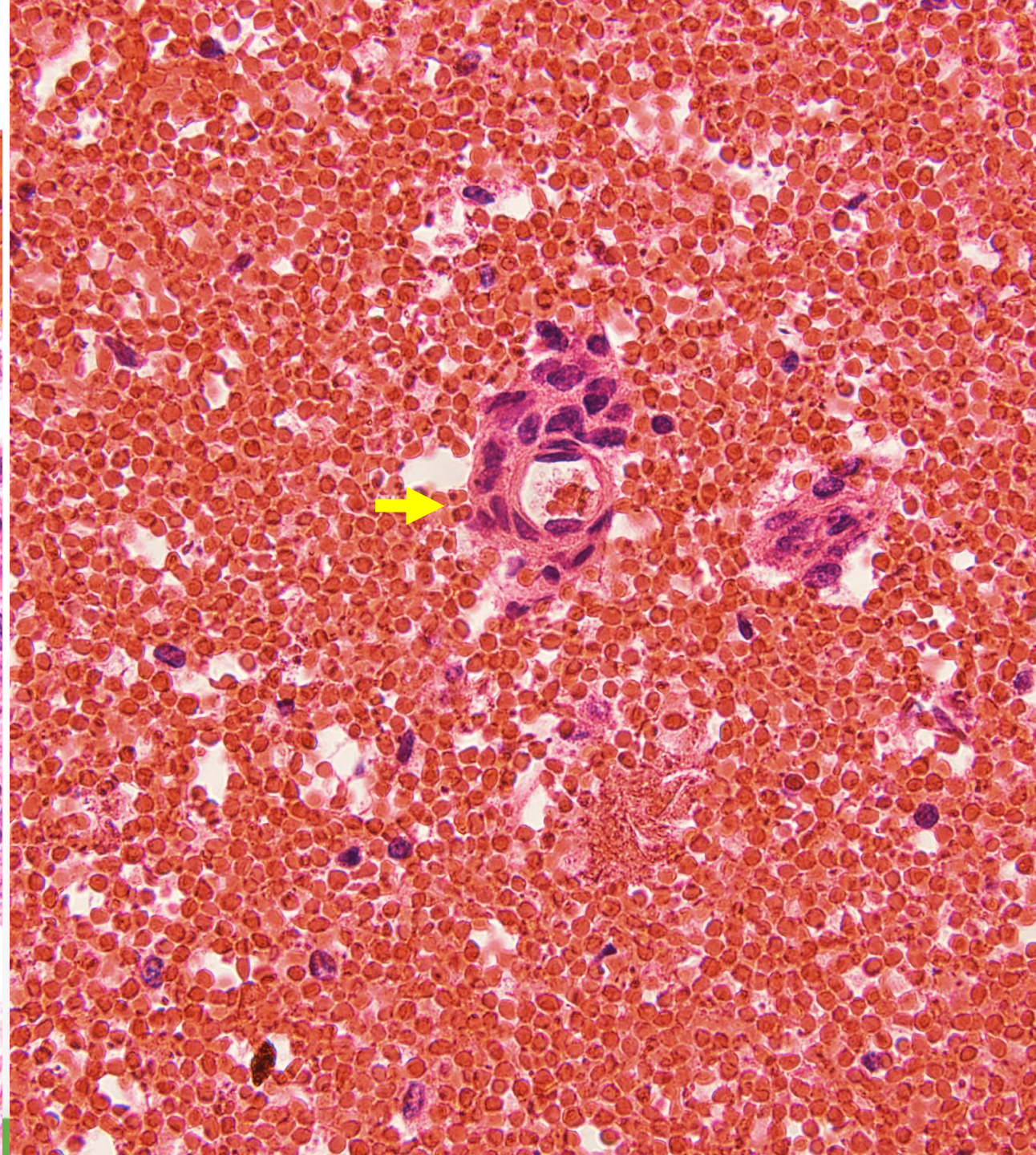
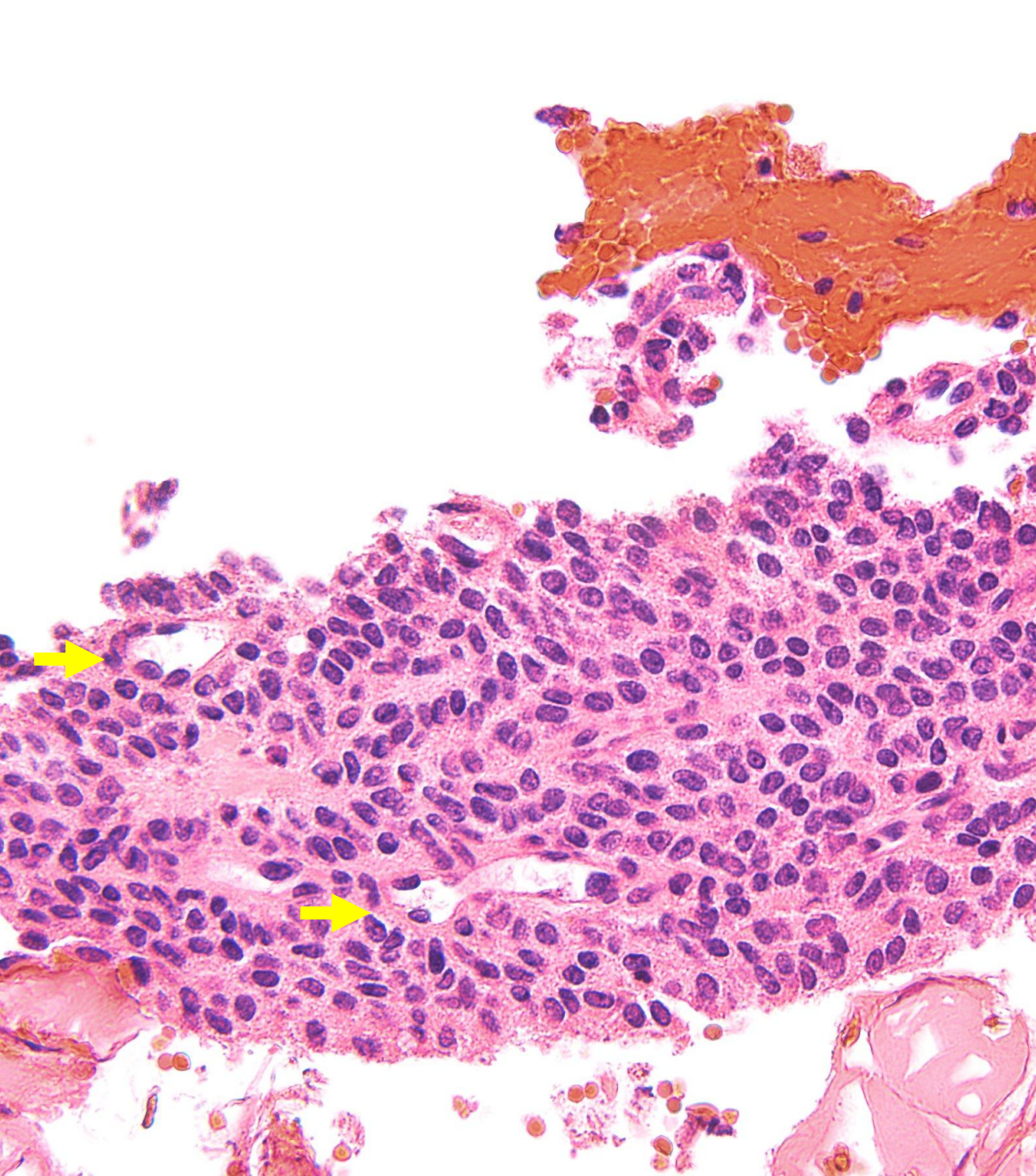


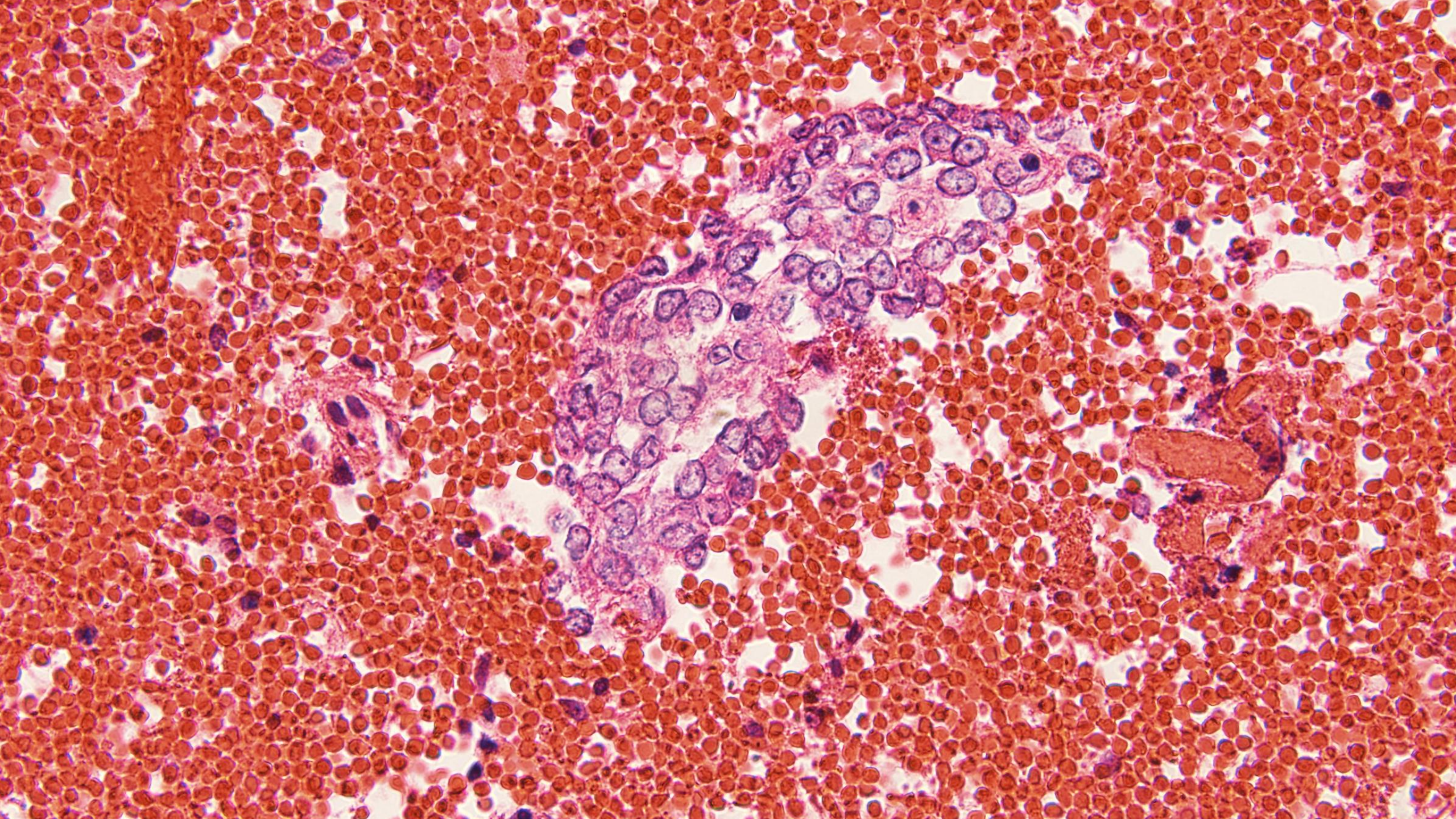












Cytologic findings

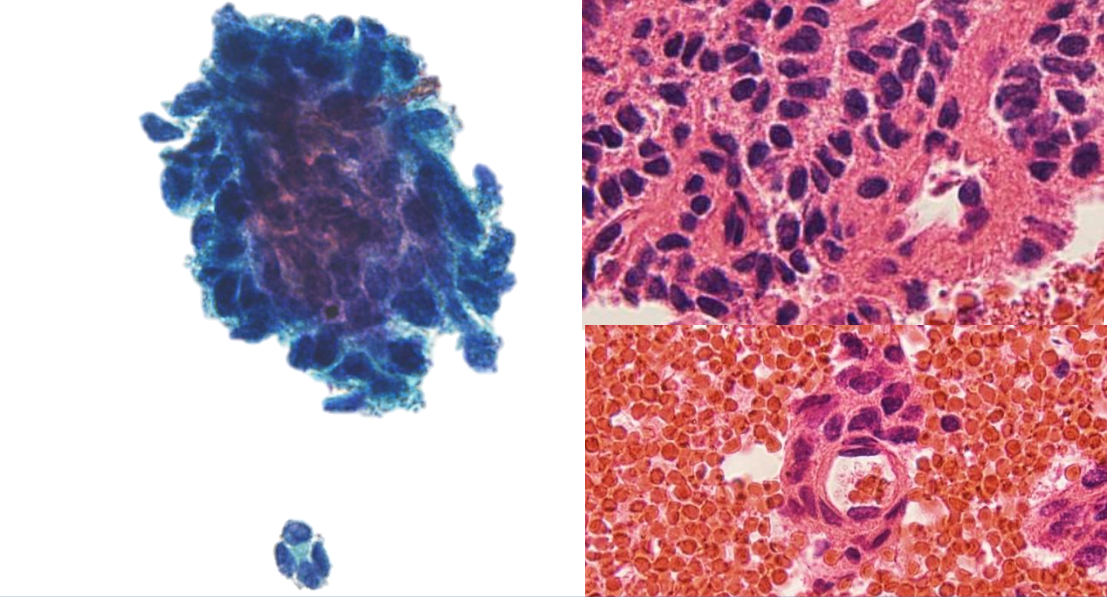
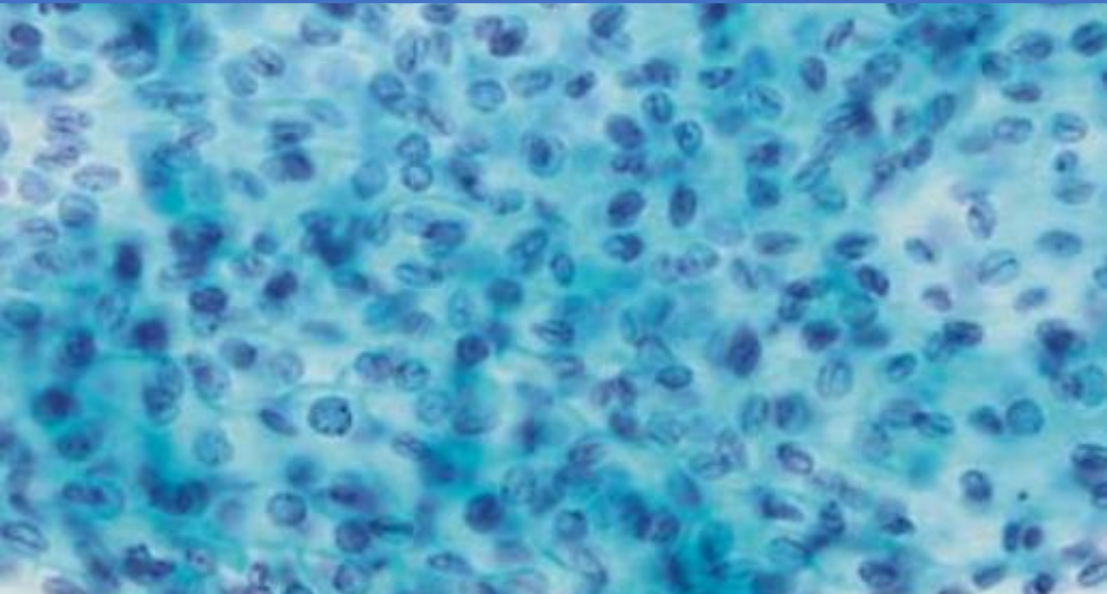
Category		Features
Clinical	57/F	
Cellularity	low	
Architecture	Cord like lining, Sheet like, proliferation around vessels Hyalinized stroma	
Cytoplasm	Scant indistinct border	
Nuclear shape	Oval to spindle Coarse chromatin	
Cell morphology	Inconspicuous nucleoli Molding Irregular nuclear membranes	
Nuclear groove	Present	
Rosettoid structure	Cells surrounding pinkish material	
Mitosis	Low	

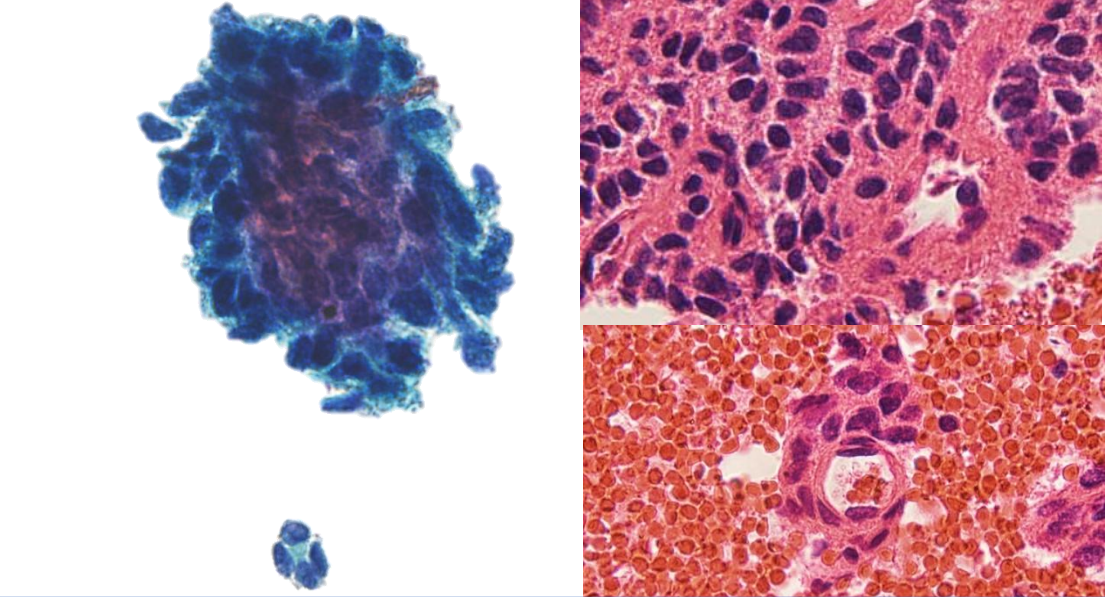
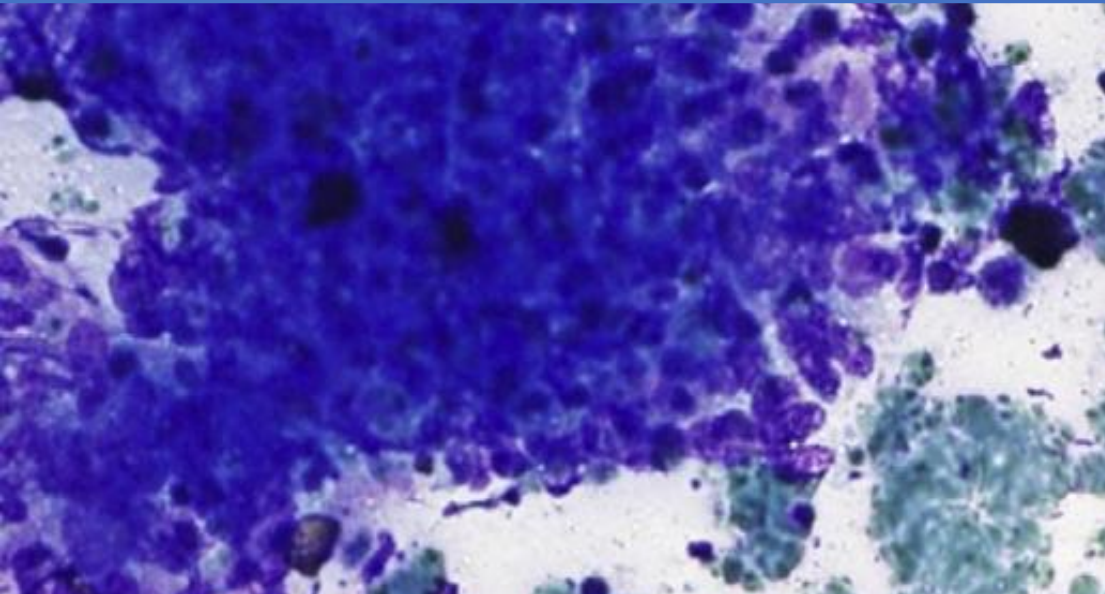
Cytologic findings

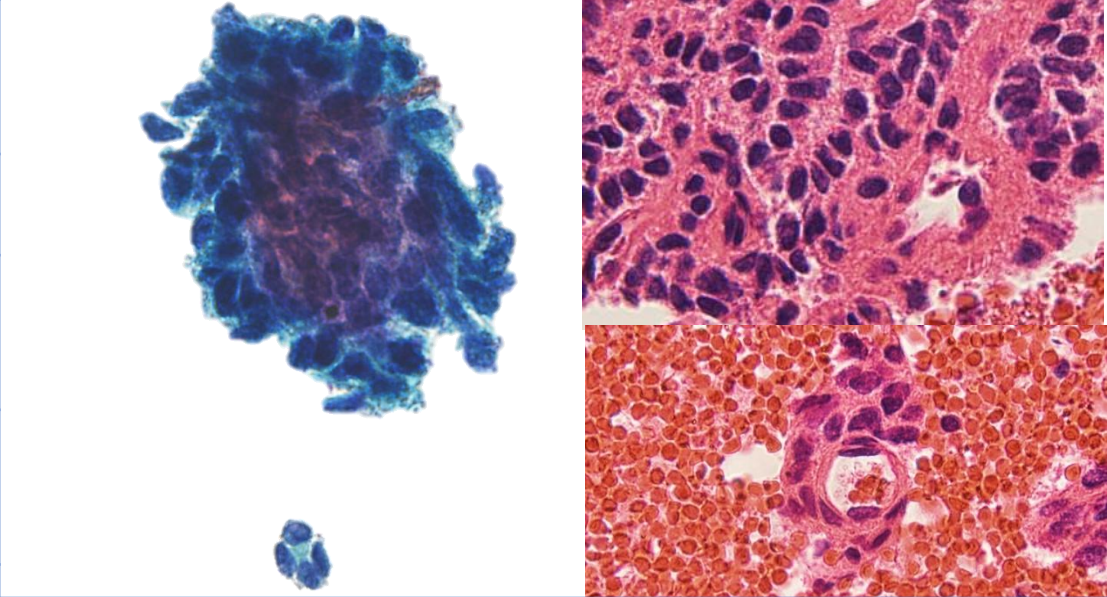
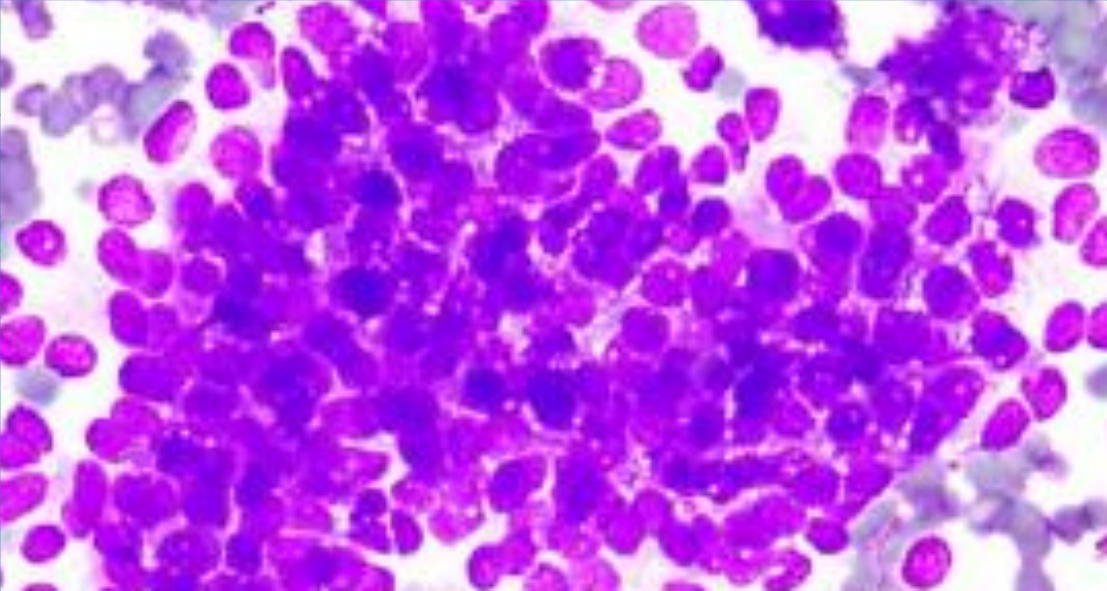
Category		Features
Clinical	57/F	
Cellularity	low	
Architecture	Cord like lining, Sheet like, proliferation around vessels Hyalinized stroma	
Cytoplasm	Scant indistinct border	
Nuclear shape	Oval to spindle Coarse chromatin	
Cell morphology	Inconspicuous nucleoli Molding Irregular nuclear membranes	
Nuclear groove	Present	
Rosettoid structure	Cells surrounding pinkish material	
Mitosis	Low	

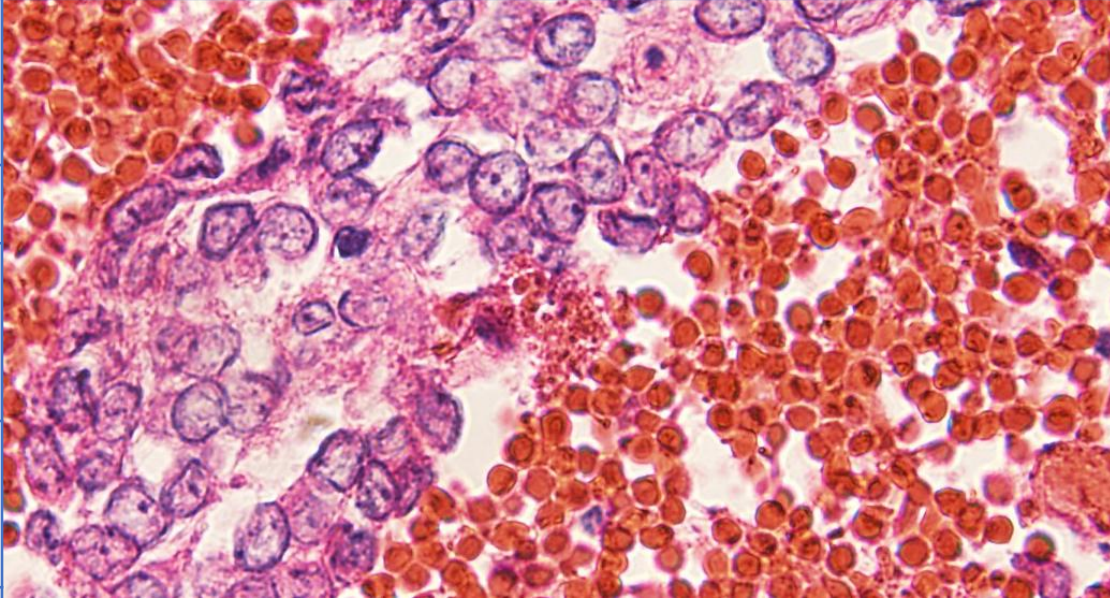
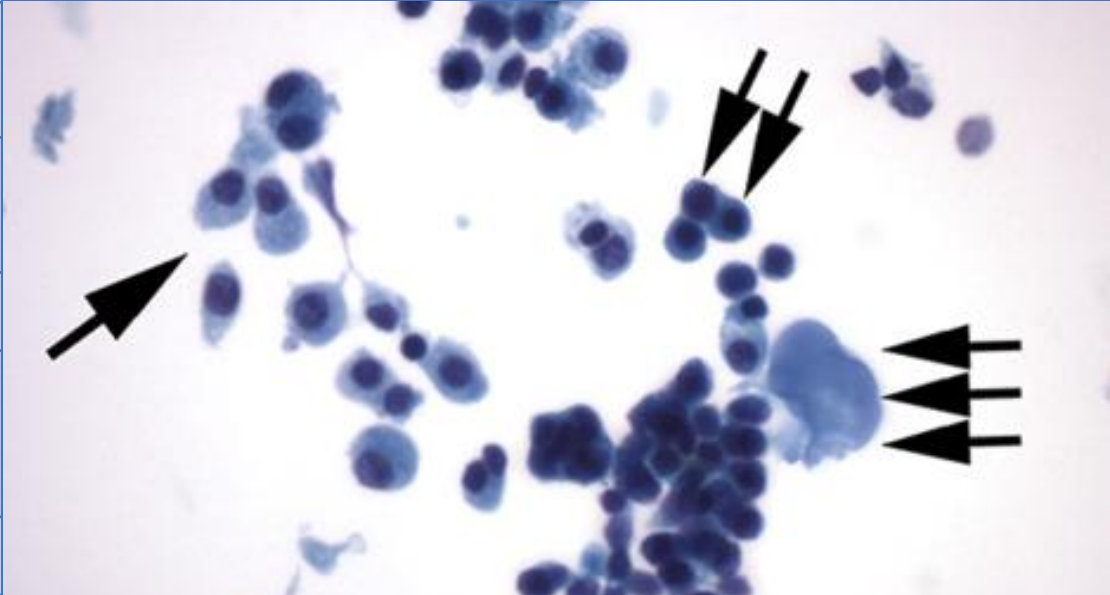
Differential diagnosis

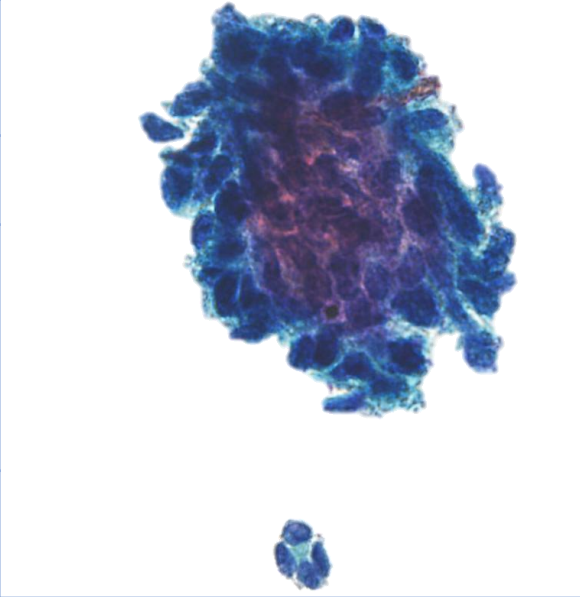
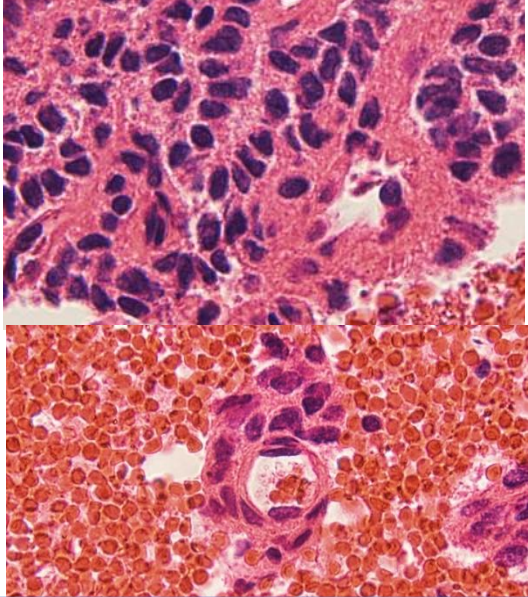
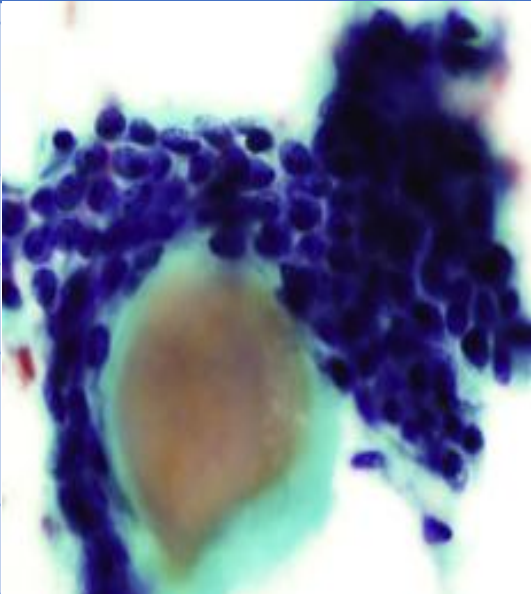
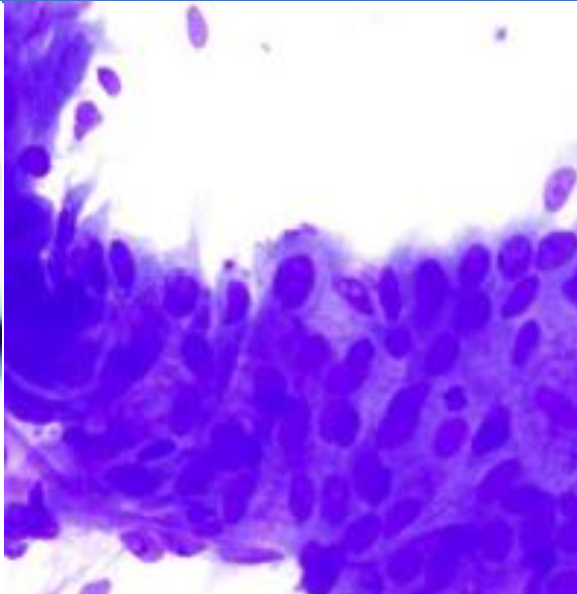
- Borderline Brenner tumor
- Small cell carcinoma of the ovary, hypercalcemic type
- Adult granulosa cell tumor
- Sex-cord tumor with annular tubules
- Endometrial stromal sarcoma

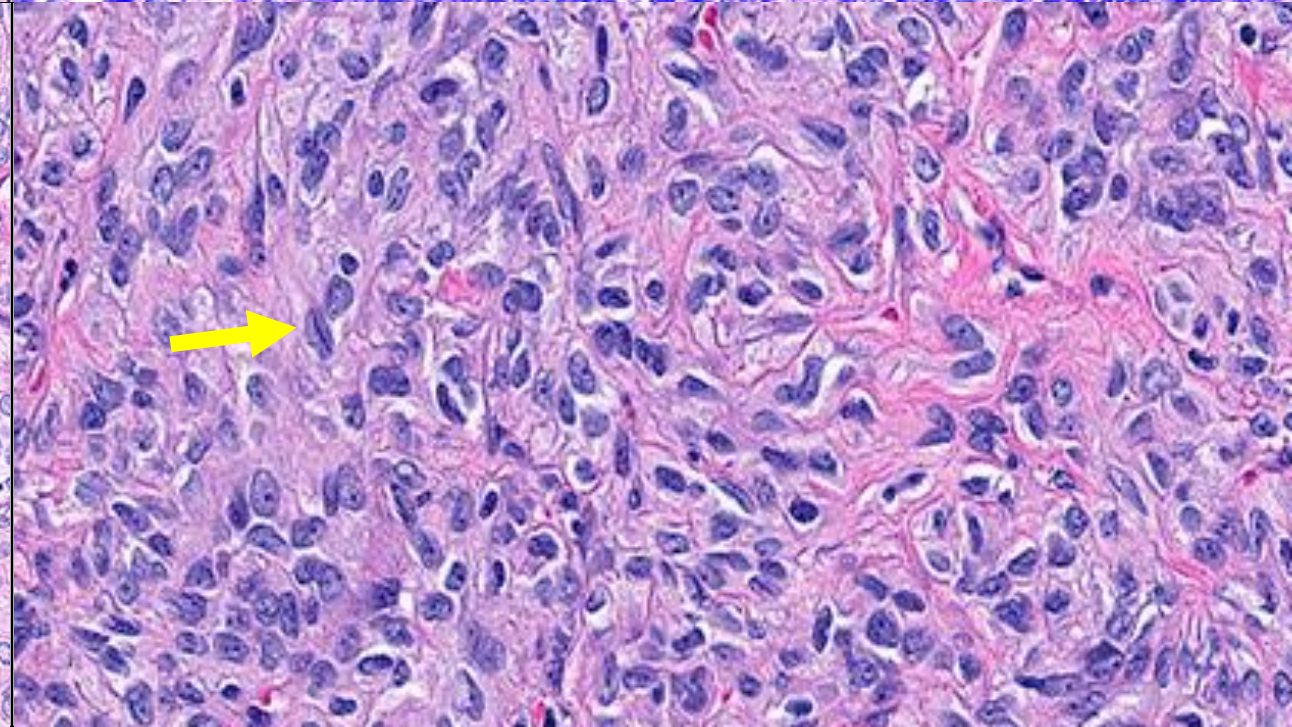
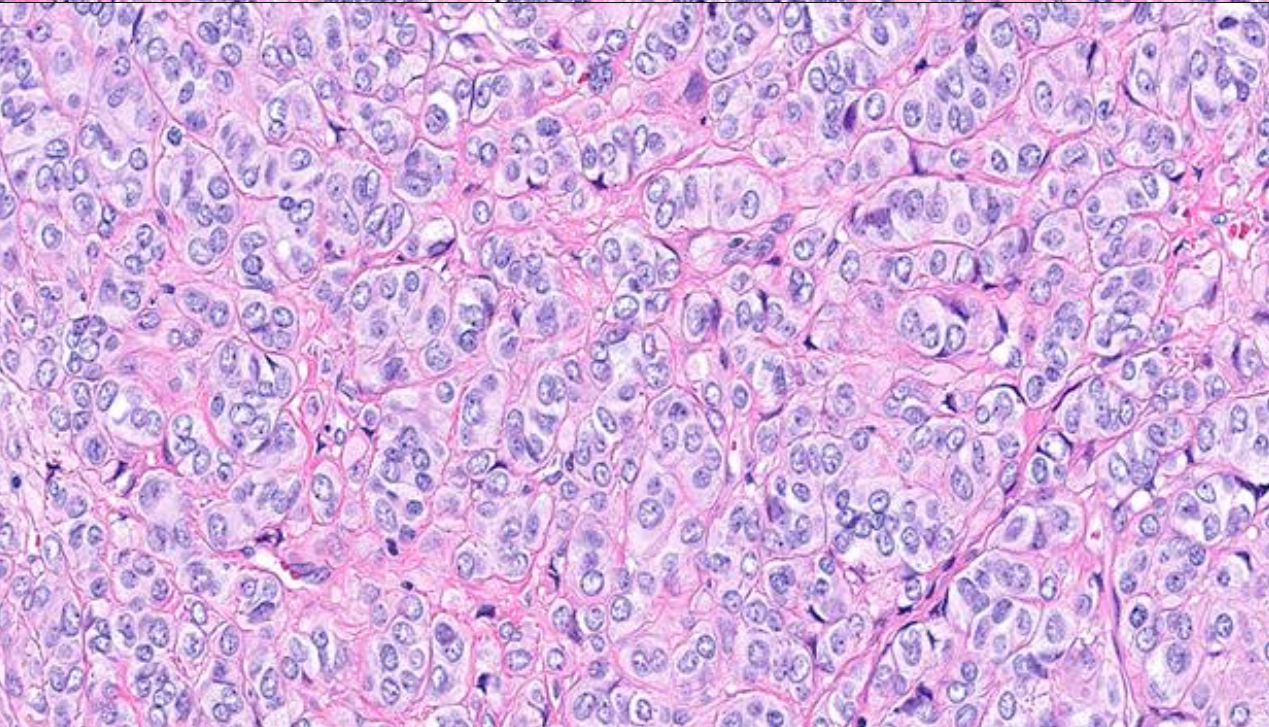
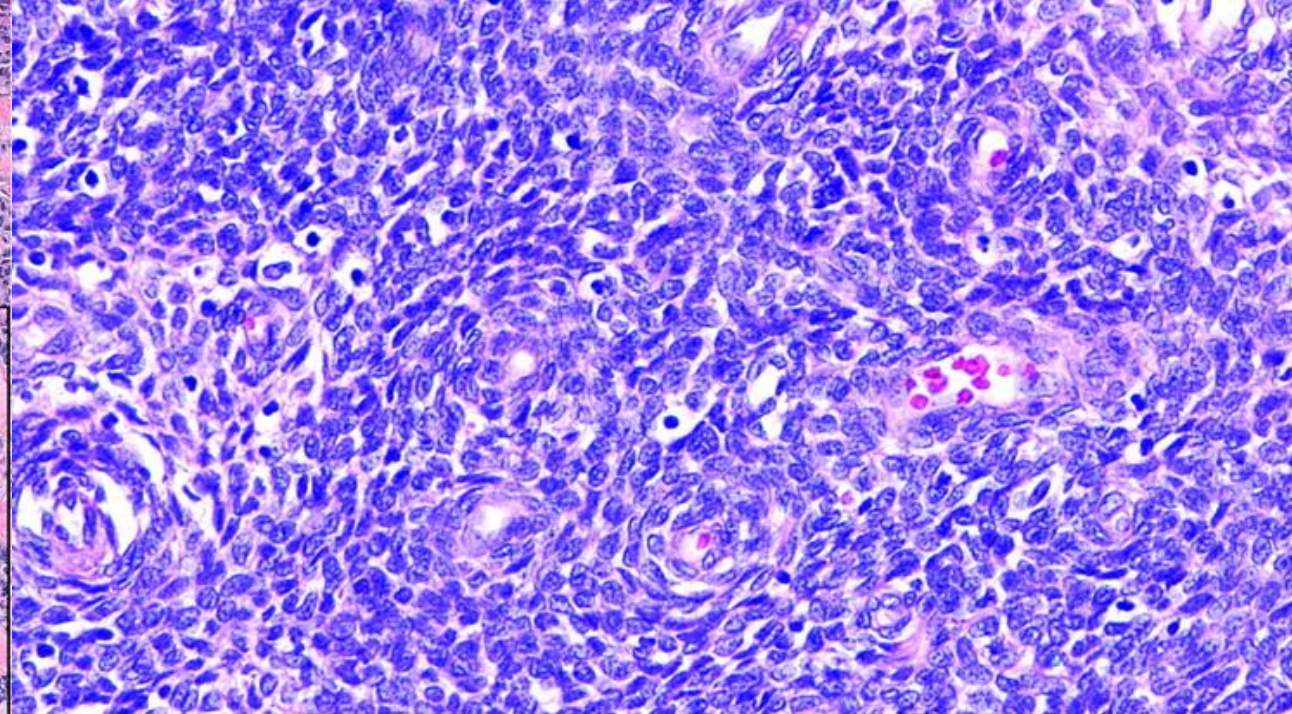
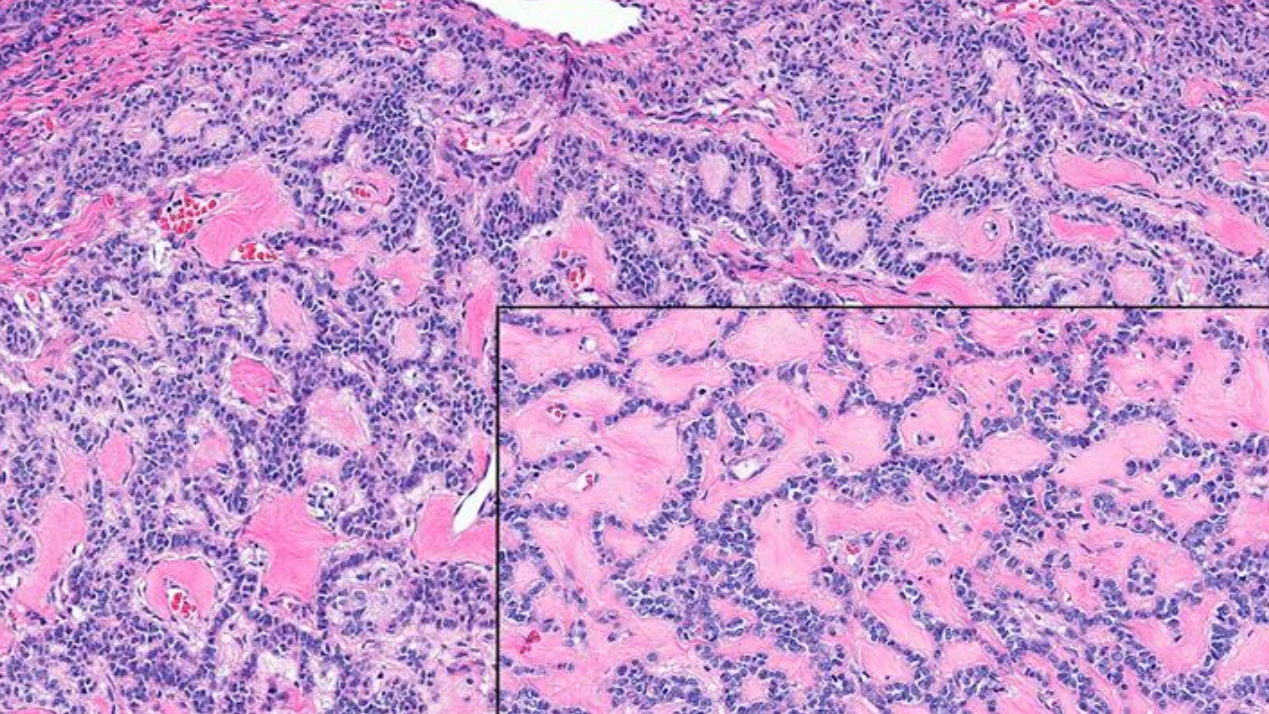
Category	KCP-1109	Malignant Brenner tumor	KCP 1109
Clinical	57/F	Usually > 50	
Cellularity	Low		
Architecture	Cord like lining, Sheet, proliferation around vessels	Sheet like, papillary, large cluster	
Cytoplasm	Scant Indistinct border	Abundant Distinct border	
Stroma	Hyalinized		Malignant Brenner tumor 
Nuclear shape	Oval to spindle Coarse chromatin	Oval Fine chromatin	
Nucleoli	Inconspicuous	Distinct	
Nuclear groove	Present	Present	
Rosettoid structure	Cells surrounding pinkish material		
Mitosis	Low	High	

Category		KCP-1109	Small cell carcinoma of ovary, hypercalcemic type	KCP 1109	
Clinical	57/F		Almost exclusively in reproductive age and children (median : 25)		
Cellularity	Low				
Architecture	Cord like lining, Sheet, proliferation around vessels		Sheets, nests, cords, and trabeculae		
Cytoplasm	Scant Indistinct border		Scant		
Stroma	Hyalinized			Small cell carcinoma, hypercalcemic type 	
Nuclear shape	Oval to spindle Coarse chromatin		Round, ovoid, spindle Vesicular chromatin		
Nucleoli	Inconspicuous		Inconspicuous		
Nuclear groove	Present		Rare		
Rosettoid structure	Cells surrounding pinkish material		Scattered follicle-like spaces with eosinophilic or basophilic secretions		
Mitosis	Low		Brisk		

Category		KCP-1109	Adult granulosa cell tumor	KCP 1109		
Clinical	57/F		Can occur at any age, perimenopausal (m/c)			
Cellularity	Low					
Architecture	Cord like lining, Sheet, proliferation around vessels		Variable - Diffuse, m/c			
Cytoplasm	Scant Indistinct border		Scant			
Stroma	Hyalinized		Fibromatous/thecomatous			
Nuclear shape	Oval to spindle Coarse chromatin		Round to oval Irregular nuclear membrane	Adult granulosa cell tumor		
Nucleoli	Inconspicuous		Distinct			
Nuclear groove	Present		Present			
Rosettoid structure	Cells surrounding pinkish material		Call-Exner bodies, microfollicular pattern			
Mitosis	Low		Low			

Category		KCP-1109	Sex-cord tumor with annular tubules	KCP 1109
Clinical	57/F		Peutz–Jeghers syndrome Peak between third and fourth decade	
Cellularity	Low			
Architecture	Cord like lining, Sheet, proliferation around vessels		Nests, occasionally solid, tubular	
Cytoplasm	Scant Indistinct border		Two cell component: Scant, indistinct (Granulosa-like) Abundant (Sertoli-like)	
Stroma	Hyalinized		eosinophilic hyaline materials around the tubule	Sex-cord tumor with annular tubules 
Nuclear shape	Oval to spindle Coarse chromatin		Oval (Granulosa-like) Round (Sertoli-like)	
Nucleoli	Inconspicuous		Inconspicuous	
Nuclear groove	Present		Present (Granulosa-like)	
Rosettoid structure	Cells surrounding pinkish material		Simple and complex annular tubules containing eosinophilic hyaline bodies	
Mitosis	Low		Low	

Category		KCP-1109	Endometrial stromal sarcoma	KCP 1109	
Clinical	57/F		perimenopausal or postmenopausal		
Cellularity	low				
Architecture	Cord like lining, Sheet, proliferation around vessels Hyalinized stroma		Diffuse, sometimes whorling around arteriole-like vessels Smooth muscle, sex cord-like (mimick granulosa cell tumor)		
Cytoplasm	Scant Indistinct border		Scant		
Stroma	Hyalinized		Fibromatous or edematous background (mimicking a fibroma)	Endometrial stromal sarcoma	
Nuclear shape	Oval to spindle Coarse chromatin		Bland oval, round		
Nucleoli	Inconspicuous		Inconspicuous to prominent(HG)		
Nuclear groove	Present		Rare		
Rosettoid structure	Cells surrounding pinkish material		Glandular differentiation		
Mitosis	Low		Low to Brisk		



Category	KCP-1109	Malignant Brenner tumor	Small cell carcinoma, hypercalcemic type	Adult granulosa cell tumor	Sex-cord tumor with annular tubules	Endometrial stromal sarcoma
Clinical	57/F	Usually > 50	Almost exclusively in reproductive age and children (median : 25)	Can occur at any age, perimenopausal (m/c)	Peutz–Jeghers syndrome Peak between third and fourth decade	perimenopausal or postmenopausal
Cellularity	Low					
Architecture	Cord like lining, Sheet, proliferation around vessels	Sheet like, papillary, large cluster	Sheets, nests, cords, and trabeculae	Variable - Diffuse, m/c	Nests, occasionally solid, tubular	Diffuse, whorling around arteriole-like vessels Smooth muscle, sex cord–like
Cytoplasm	Scant Indistinct border	Abundant Distinct border	Scant	Scant	Two cell component: Scant, indistinct (Granulosa-like) Abundant (Sertoli-like)	Scant
Stroma	Hyalinized			Fibromatous/ thecomatous	eosinophilic hyaline materials around the tubule	Fibromatous background
Nuclear shape	Oval to spindle Coarse chromatin	Oval Fine chromatin	Round, ovoid, spindle Vesicular chromatin	Round to oval Irregular nuclear membrane	Oval (Granulosa-like) Round (Sertoli-like)	Bland oval, round
Nucleoli	Inconspicuous	Distinct	Inconspicuous	Distinct	Inconspicuous	Inconspicuous to prominent(HG)
Nuclear groove	Present	Present	Rare	Present	Present (Granulosa-like)	Rare
Rosettoid structure	Cells surrounding pinkish material		Follicle-like spaces /c eosinophilic secretions	Call–Exner bodies, microfollicular pattern	Tubules containing hyaline bodies	Glandular differentiation
Mitosis	Low	High	Brisk	Low	Low	Low

Diagnosis

Peritoneal washing:

Adequate for evaluation.

Suspicious for malignancy (see Note).

NOTE: This specimen is composed of bland spindle to oval cells, arranged in a sheet to cord like pattern, occasionally whorling around arteriole-like vessels. **Endometrial stromal sarcoma** could be considered in the differential diagnosis. Histologic comparison with the slides from the prior ovarian surgery is recommended.

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경청해 주셔서 감사합니다.

Thank you for your attention

