

Le atrofie in citologia cervico-vaginale: Traps and Mimics

Giovanni Negri

AP Bolzano

Cytohistic Correlation in Premenopausal and Postmenopausal Women

Syed M. Gilani Paul F. Mazzara

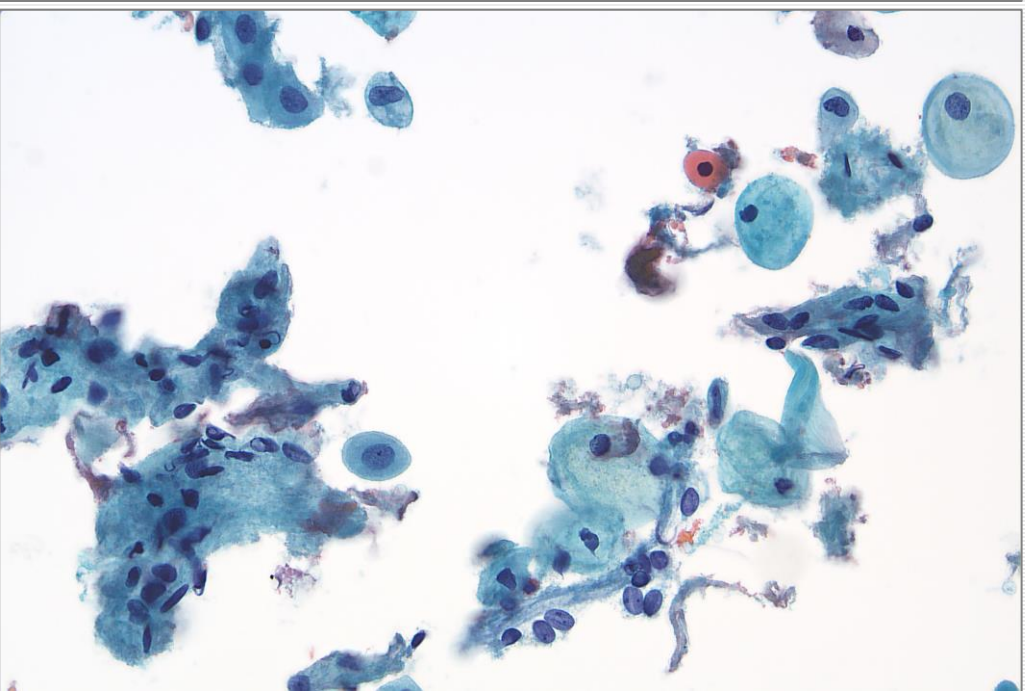
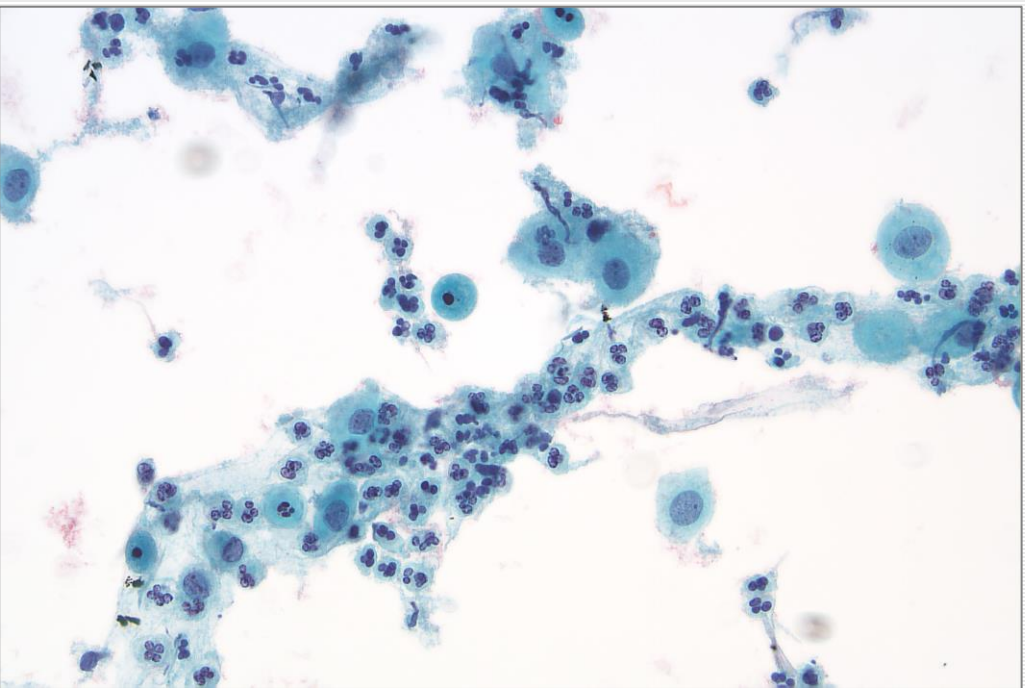
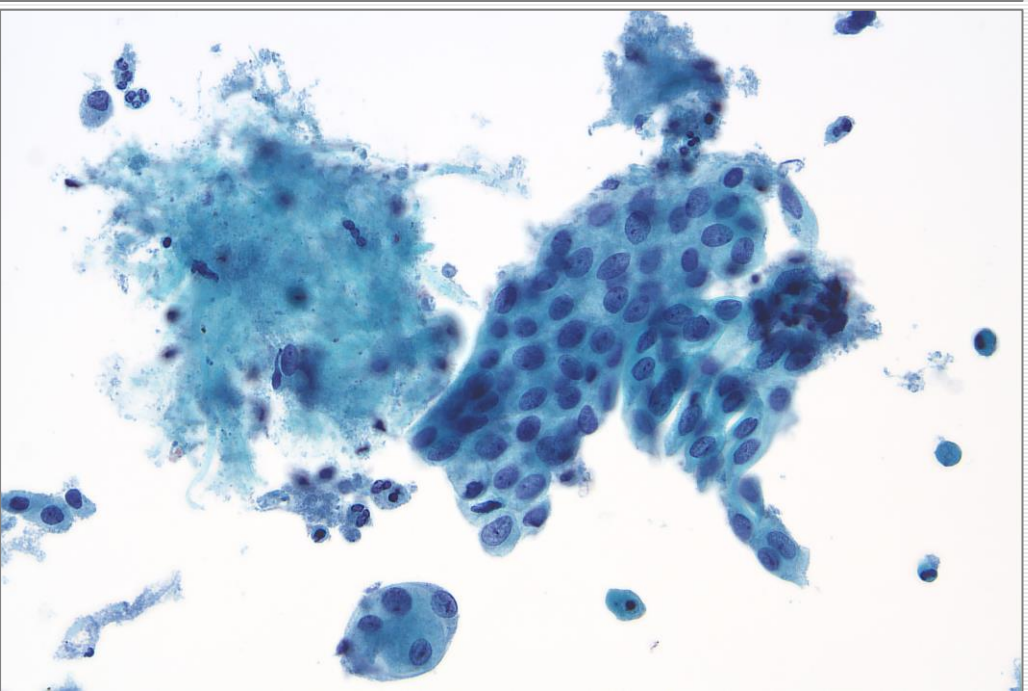
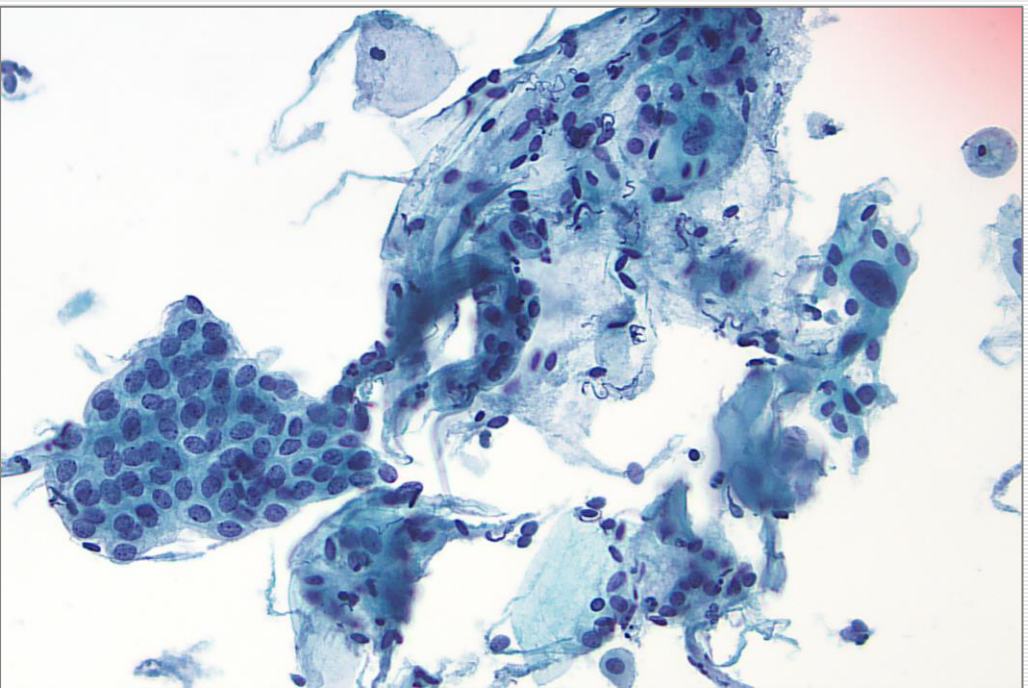
(...) in premenopausal women, the positive predictive value (PPV) for the ThinPrep Pap smear was 62% compared to 38% in postmenopausal women, while the sensitivity was 97 and 87%, respectively.

52.5% of the Pap smears in postmenopausal women versus 33.6% in premenopausal women were classified as false positive (FP)

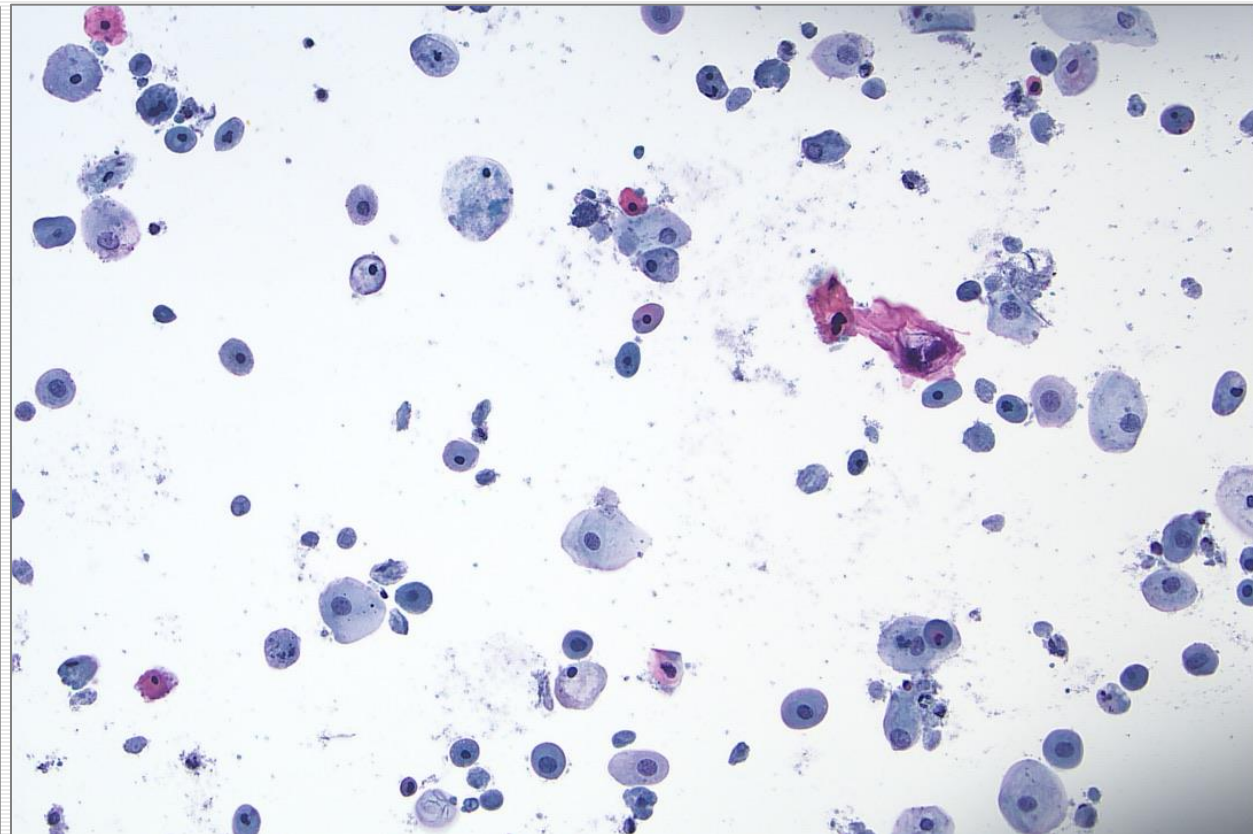
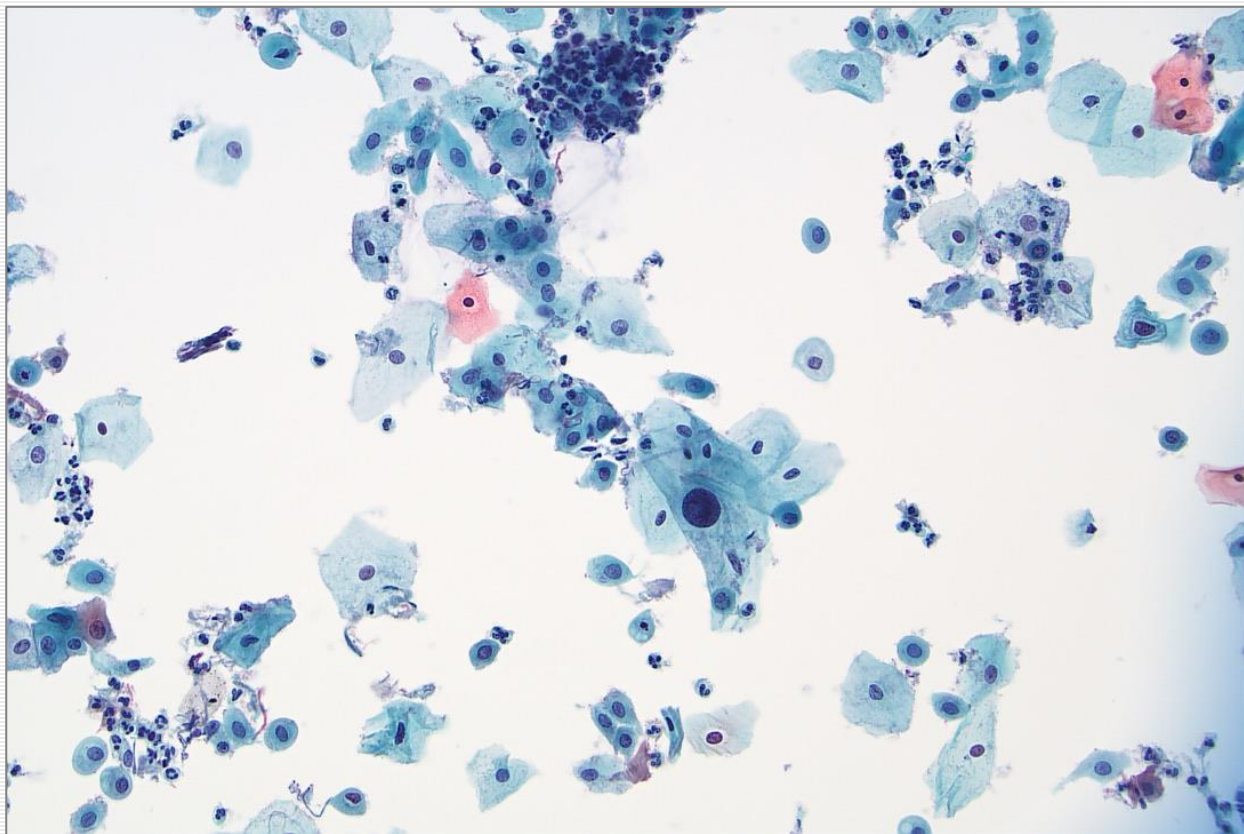
Table 1. Summary of premenopausal and postmenopausal cases

Categories	Premenopausal	Postmenopausal
Total selected Pap smears	387	40
TP	215 (55.5%)	13 (32.5%)
LSIL	158	6
HSIL	57	4
ADC	0	3
HPV-positive	40	2
HPV-negative	12	1
FP	130 (33.6%)	21 (52.5%)
Absent TZ on biopsy	22 (17%)	10 (47.6%)
HPV-positive	25	5
HPV-negative	10	1
FN	7 (1.8%)	2 (5%)
HPV-positive	1	1
HPV-negative	0	0
TN	35 (9.1%)	4 (10%)
Normal	28	4
Reactive	7	0
HPV-positive	1	0
HPV-negative	1	1
Sensitivity	97%	87%
Negative predictive value	83%	66%
PPV	62%	38%

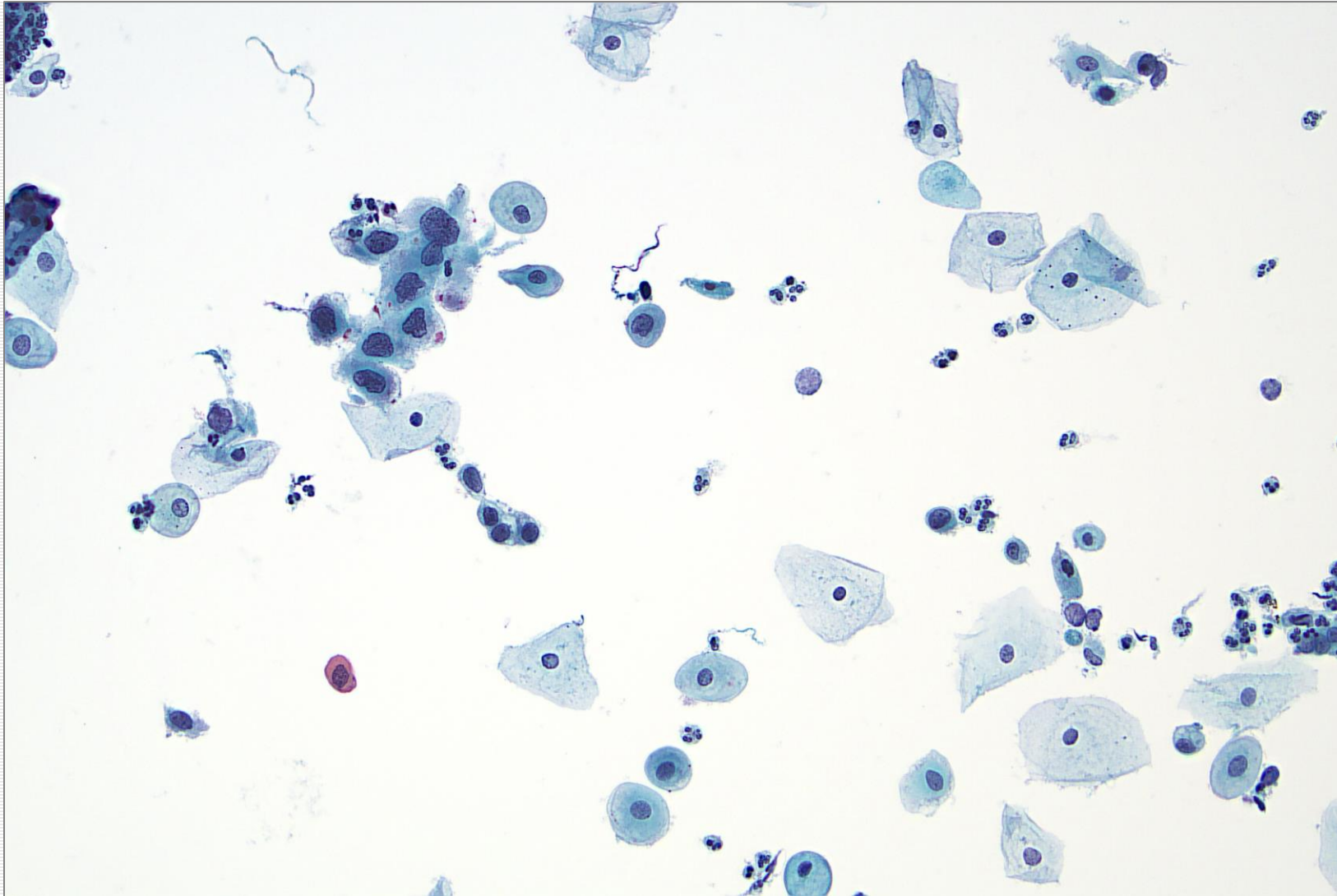
La citologia normale in atrofia



LSIL in atrofia



HSIL in atrofia



TBS 2014: Atrophy

- Atrophy may coexist with dysplasia or neoplasia, and the diffusely increased nuclear to cytoplasmic ratio of background parabasal/basal squamous cells can make identification of true abnormalities more challenging.
- Atypical cellular changes associated with atrophy warrant an interpretation of atypical squamous cells (ASC).
- In low-risk scenarios, it may be prudent to categorize such atypias as ASC-US rather than ASC-H and allow adjunctive hrHPV testing to determine downstream management which may avoid overtreatment.

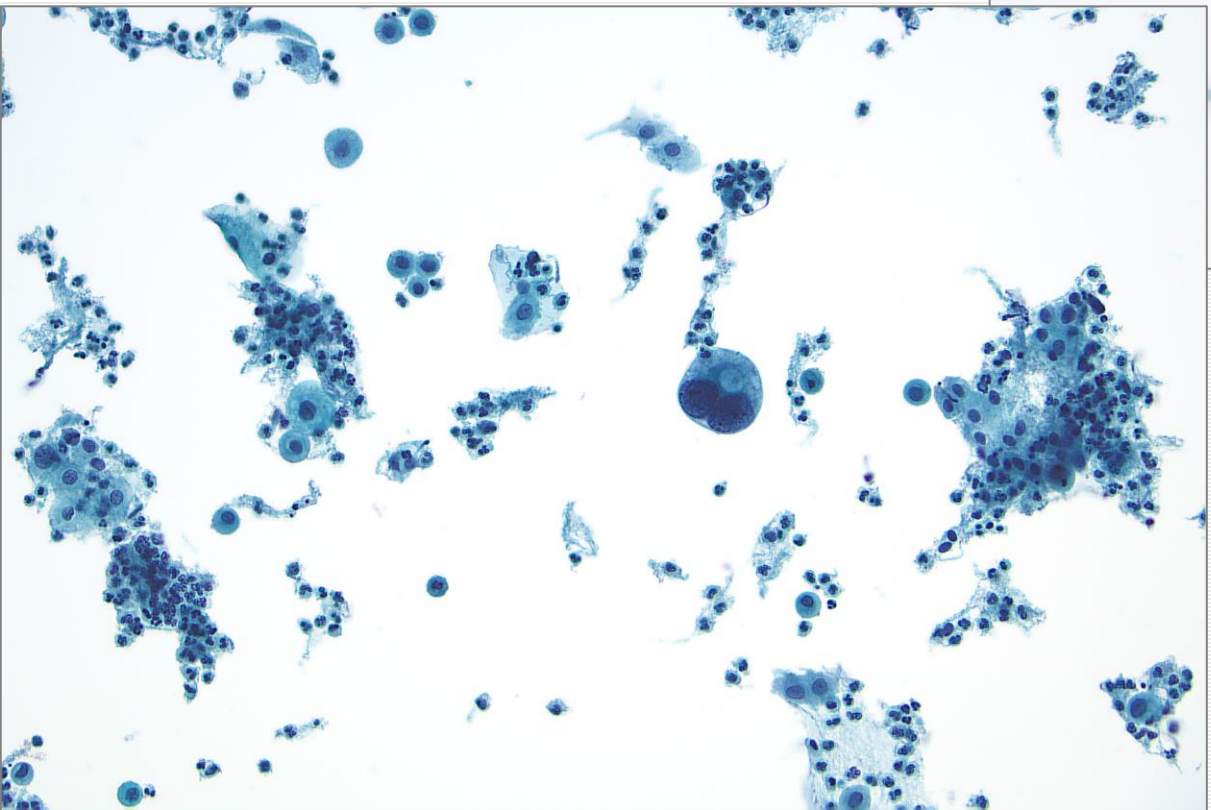
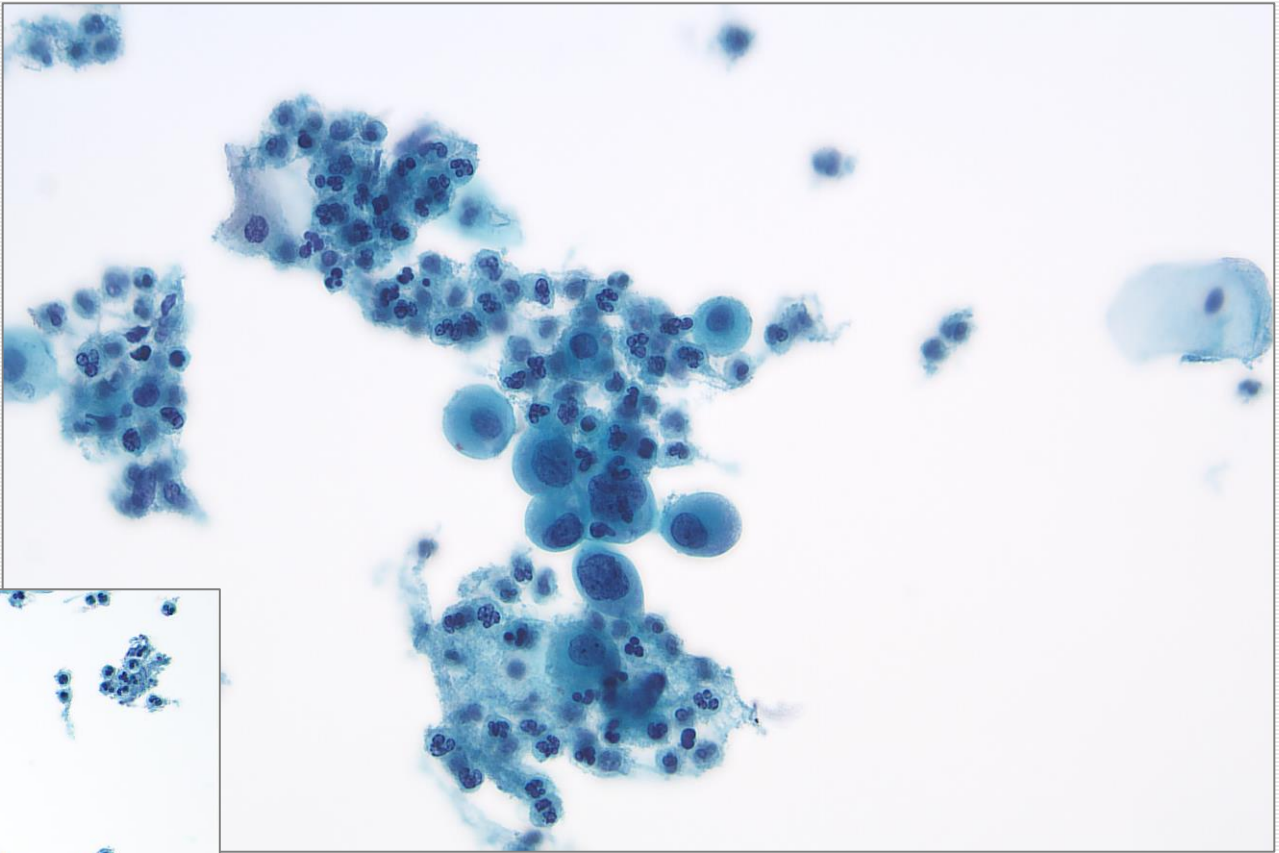
Where's the High-Grade Cervical Neoplasia? The Importance of Minimally Abnormal Papanicolaou Diagnoses

WALTER K. KINNEY, MD, M. MICHELE MANOS, PhD, MPH, LEO B. HURLEY, MPH,
AND JANICE E. RANSLEY, MD

Table 1. Estimated Age-Specific Distributions: Sources of Histologic High-Grade Neoplasia

Papanicolaou category	Age <40 y			Age ≥40 y		
	% of Papanicolaou smears (n = 18,636)	% with HSIL+ histology	Estimated % of all HSIL+ cases*	% of Papanicolaou smears (n = 16,123)	% with HSIL+ histology	Estimated % of all HSIL+ cases*
ASCUS	4.2	11.0 (62/561)	43.6	3.6	2.5 (11/434)	44.3
AGCUS	0.4	21.9 (14/64)	8.3	0.6	5.5 (4/73)	16.3
Low-grade SIL	1.3	16.5 (36/218)	20.2	0.2	9.6 (5/52)	9.4
High-grade SIL	0.4	73.8 (59/80)	27.9	0.1	60.9 (14/23)	30.0

ASC-US in atrofia, HPV+



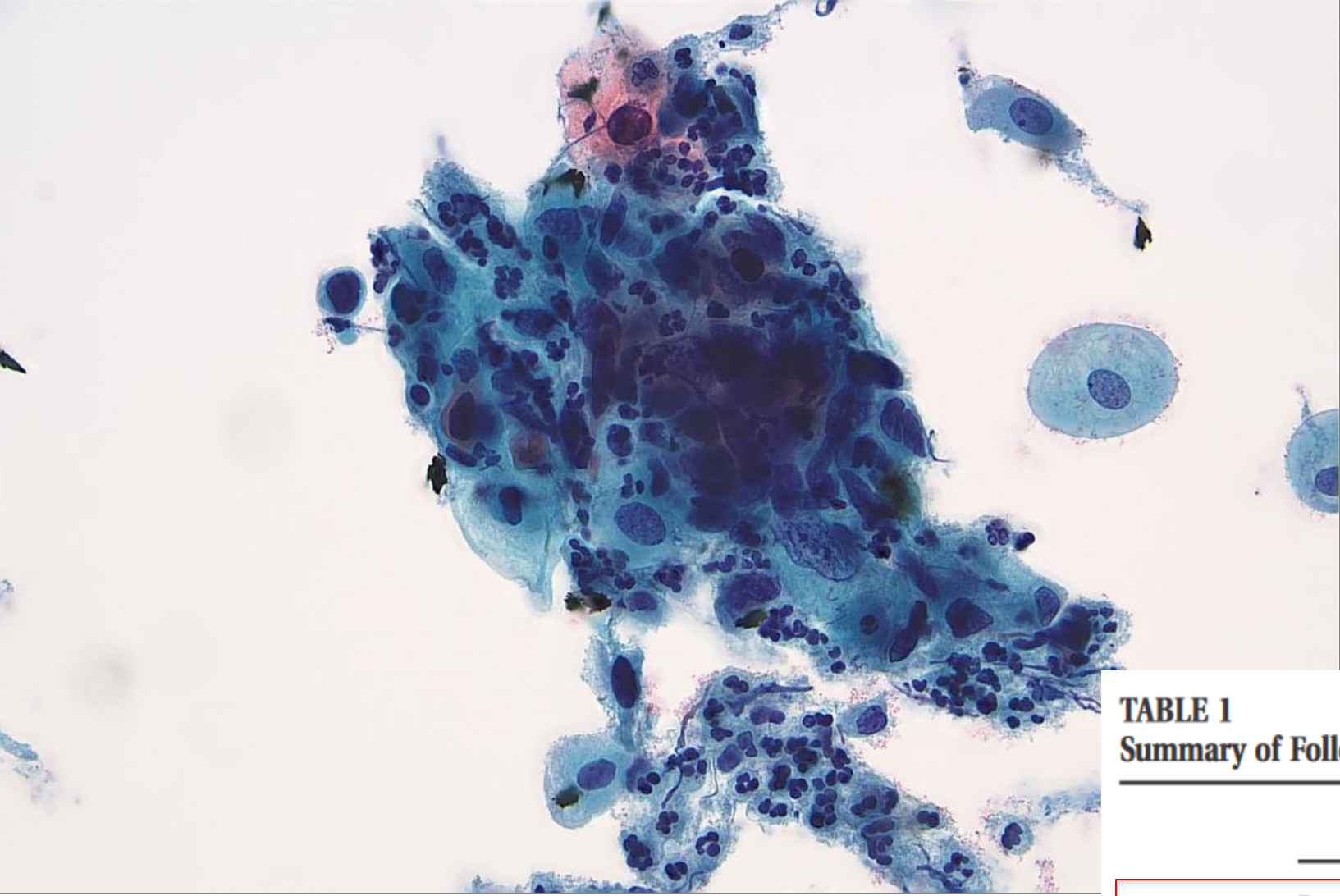


TABLE 1
Summary of Follow-up in All Categories

Follow-Up	No. of Patients (%)			
	Postmenopausal (n = 89)	Pregnant (n = 44)	Postpartum (n = 27)	Contraceptive Use (n = 35)
High grade	20 (22.5)	35 (79.6)	18 (66.7)	21 (60)
Low grade	28 (31.5)	3 (6.8)	6 (22.2)	7 (20)
Negative	41 (46)	6 (13.6)	3 (11.1)	7 (20)

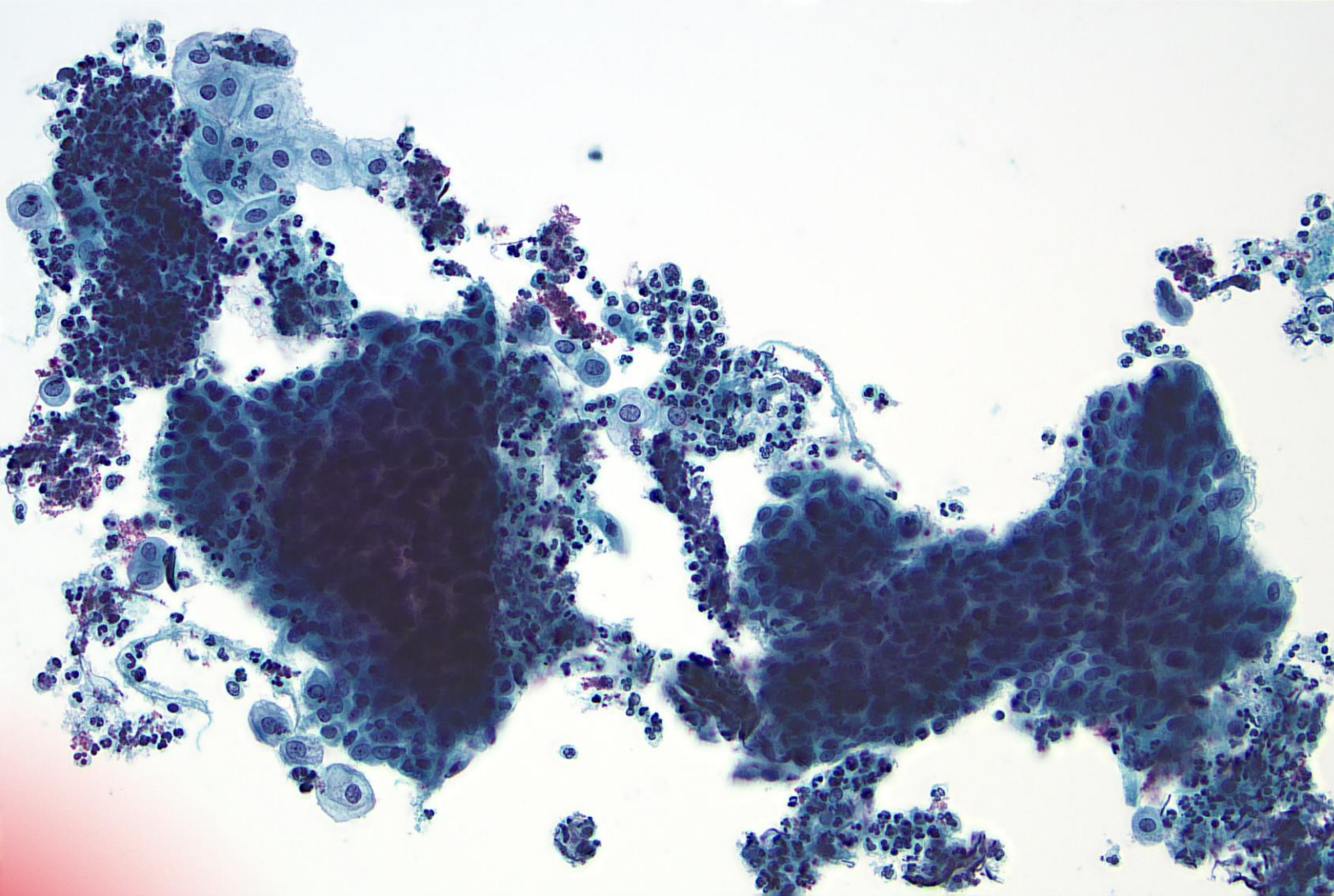
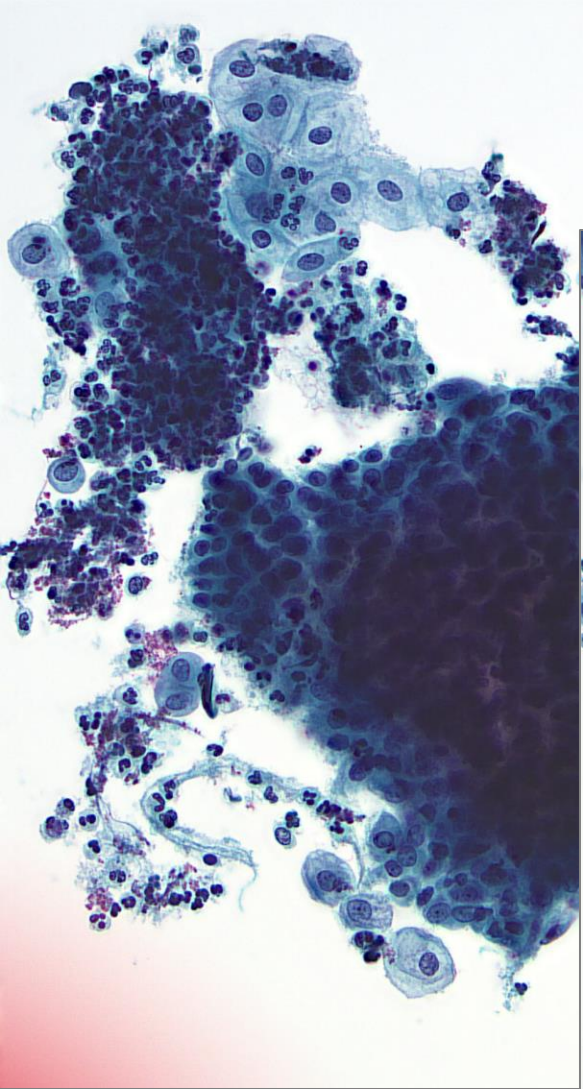


Table 1
Examples of Hyperchromatic Crowded Groups

Benign or Reactive	Neoplastic
Endometrial cells	Carcinoma in situ
Atrophy/atypia of atrophy	Squamous cell carcinoma
Endocervical cells	Adenocarcinoma in situ
Atypical (reactive) endocervical cells	Endocervical adenocarcinoma
Tubal metaplasia	Endometrial carcinoma
Cone biopsy artifact	Metastatic carcinoma

R M DeMay, AmJClinPathol 2000;114(Suppl 1):S36-S43

Hyperchromatic crowded groups



Hyperchroma

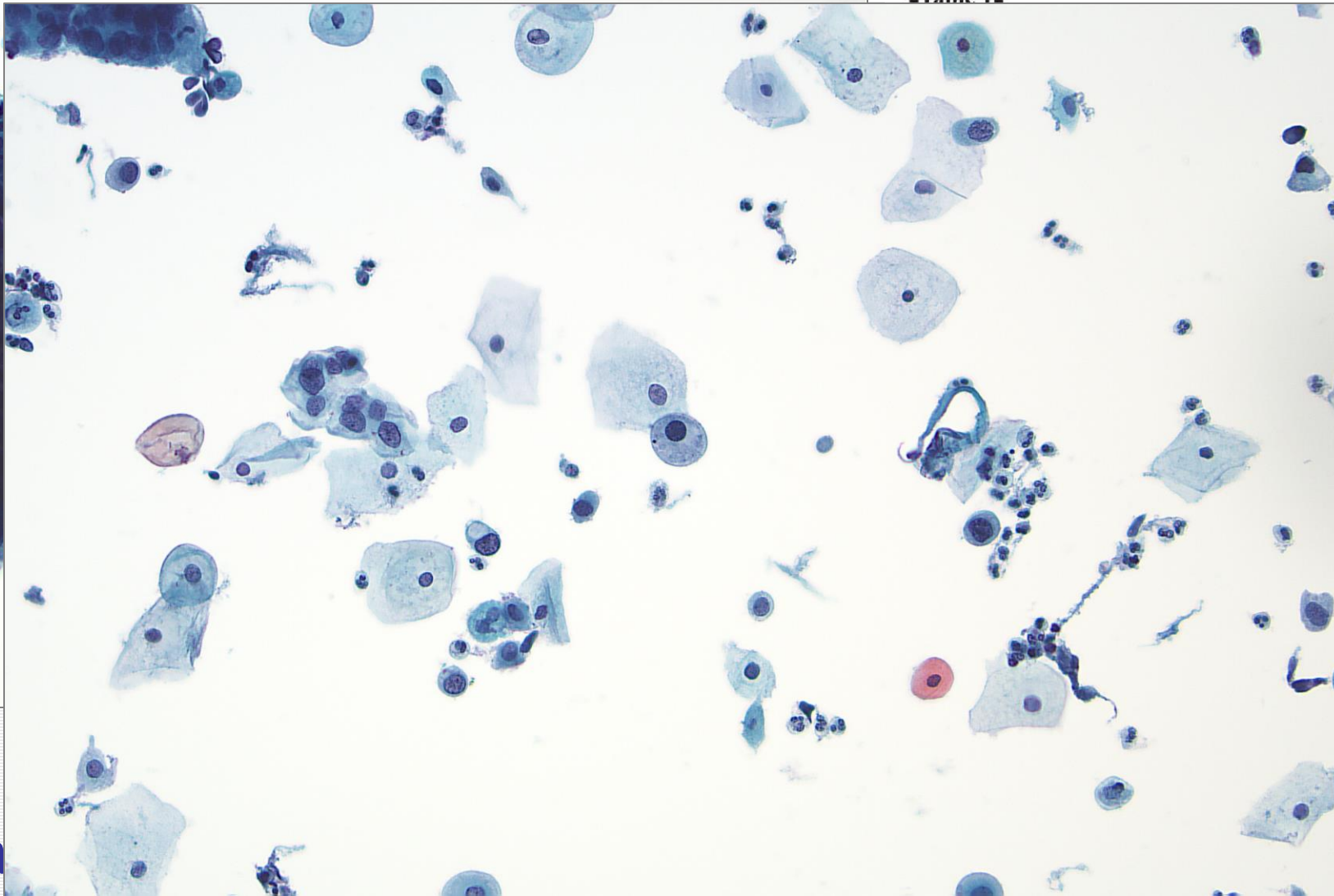
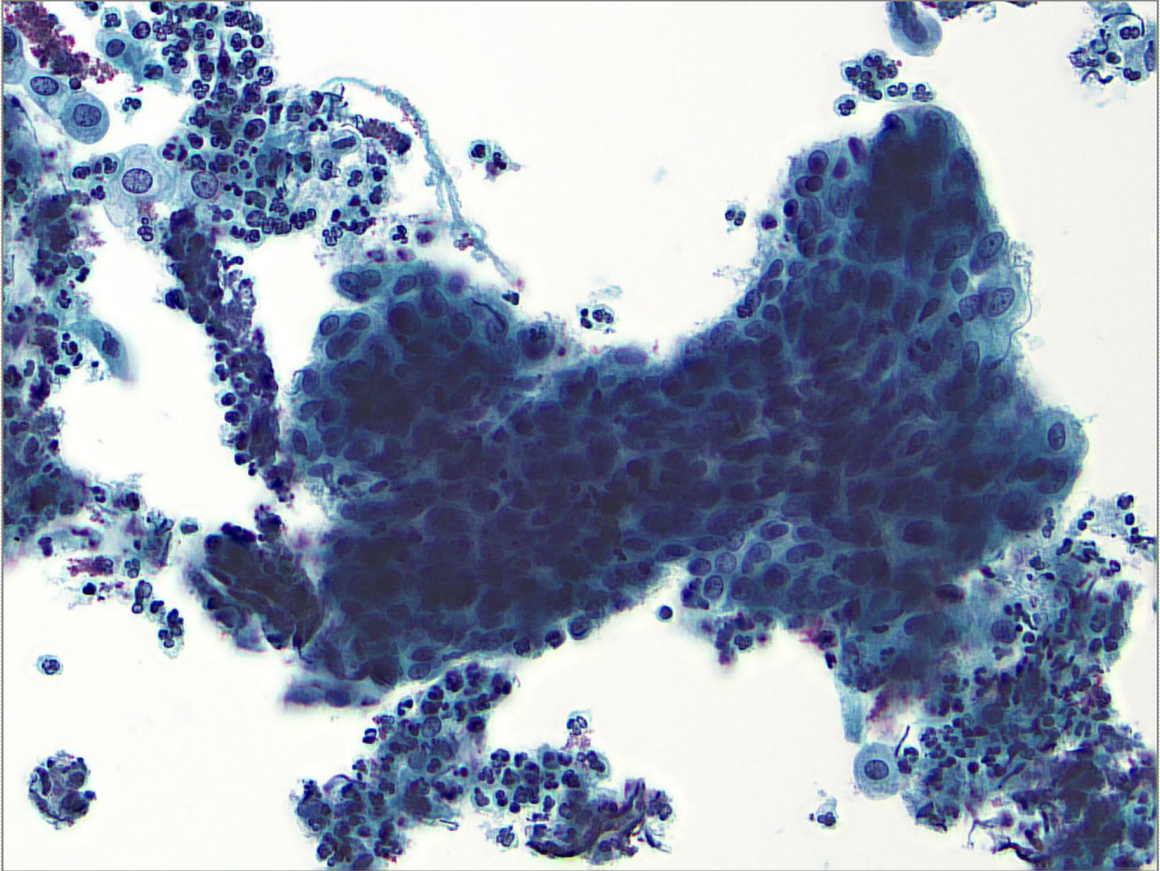
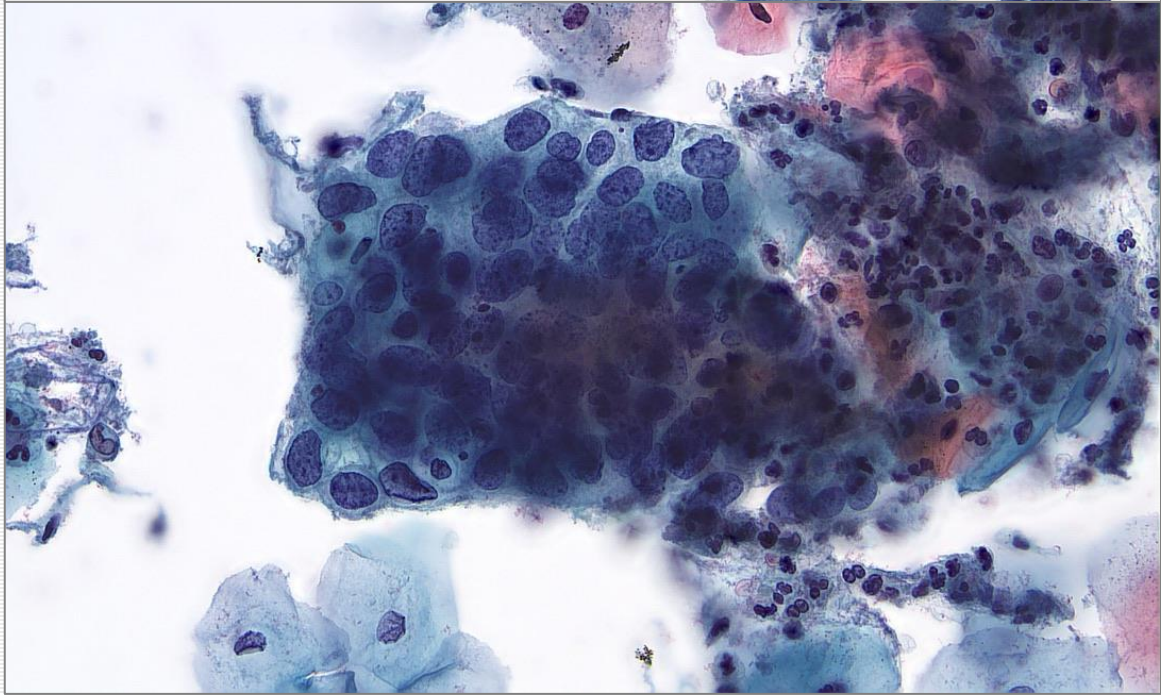
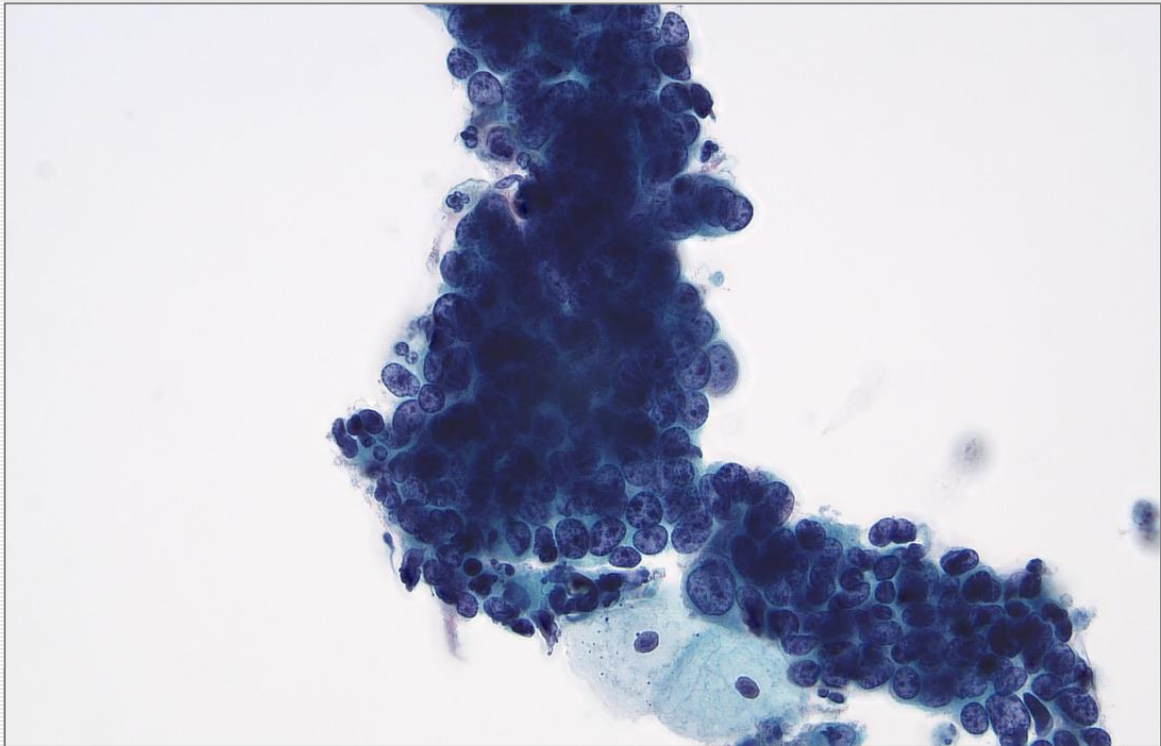



Table 1

Groups
Neoplastic
Adenoma in situ
Squamous cell carcinoma
Ovarian carcinoma in situ
Cervical
Endometrial carcinoma
Stomach carcinoma

pp1):S36-S43



Performance of p16/Ki67 Immunostaining for Triage of Elderly Women with Atypical Squamous Cells of Undetermined Significance

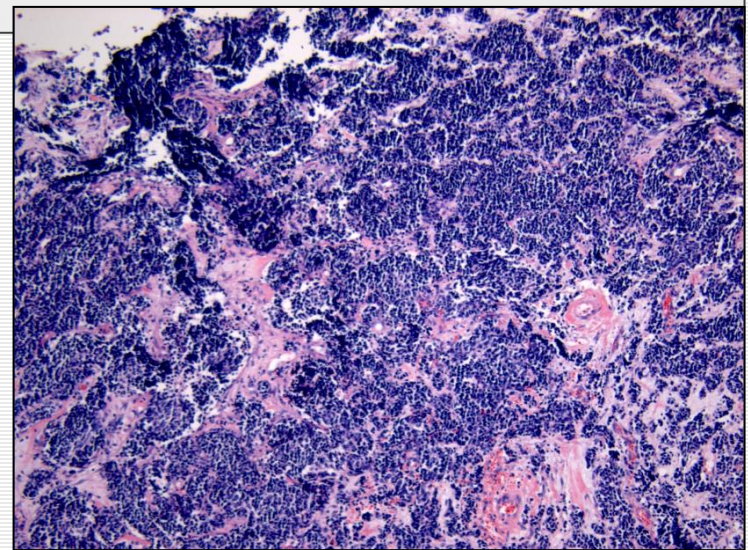
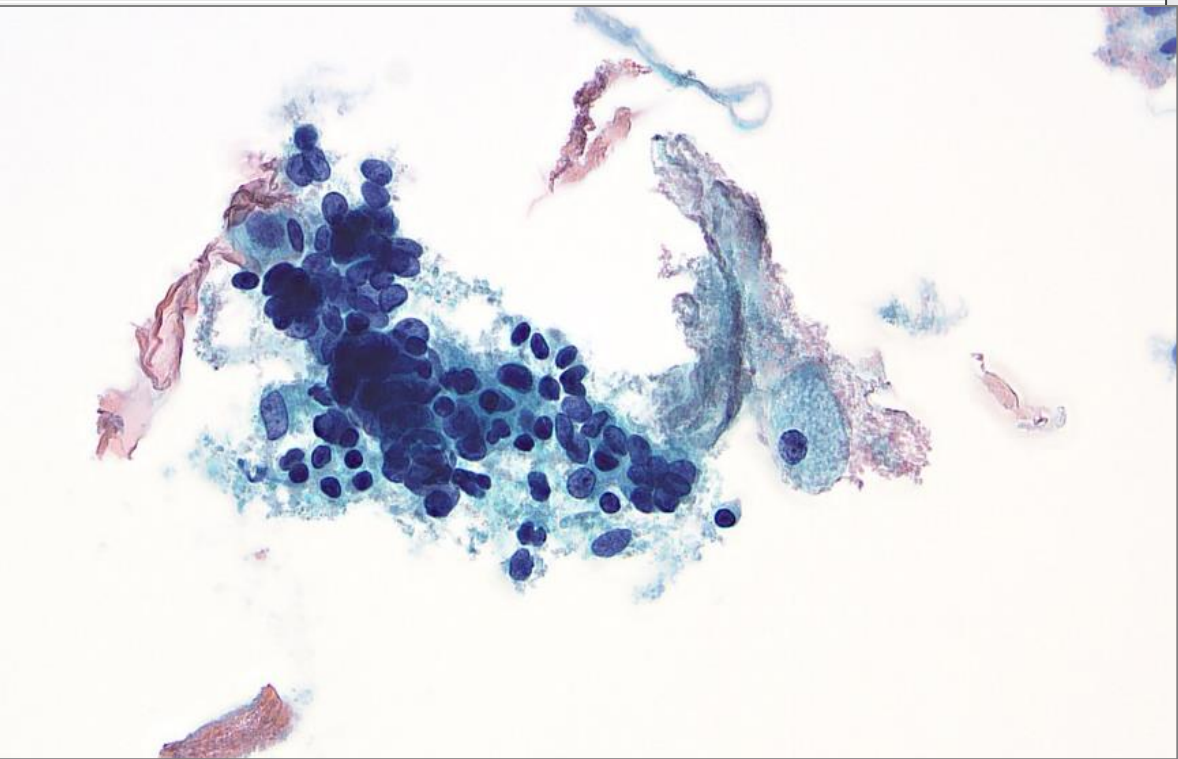
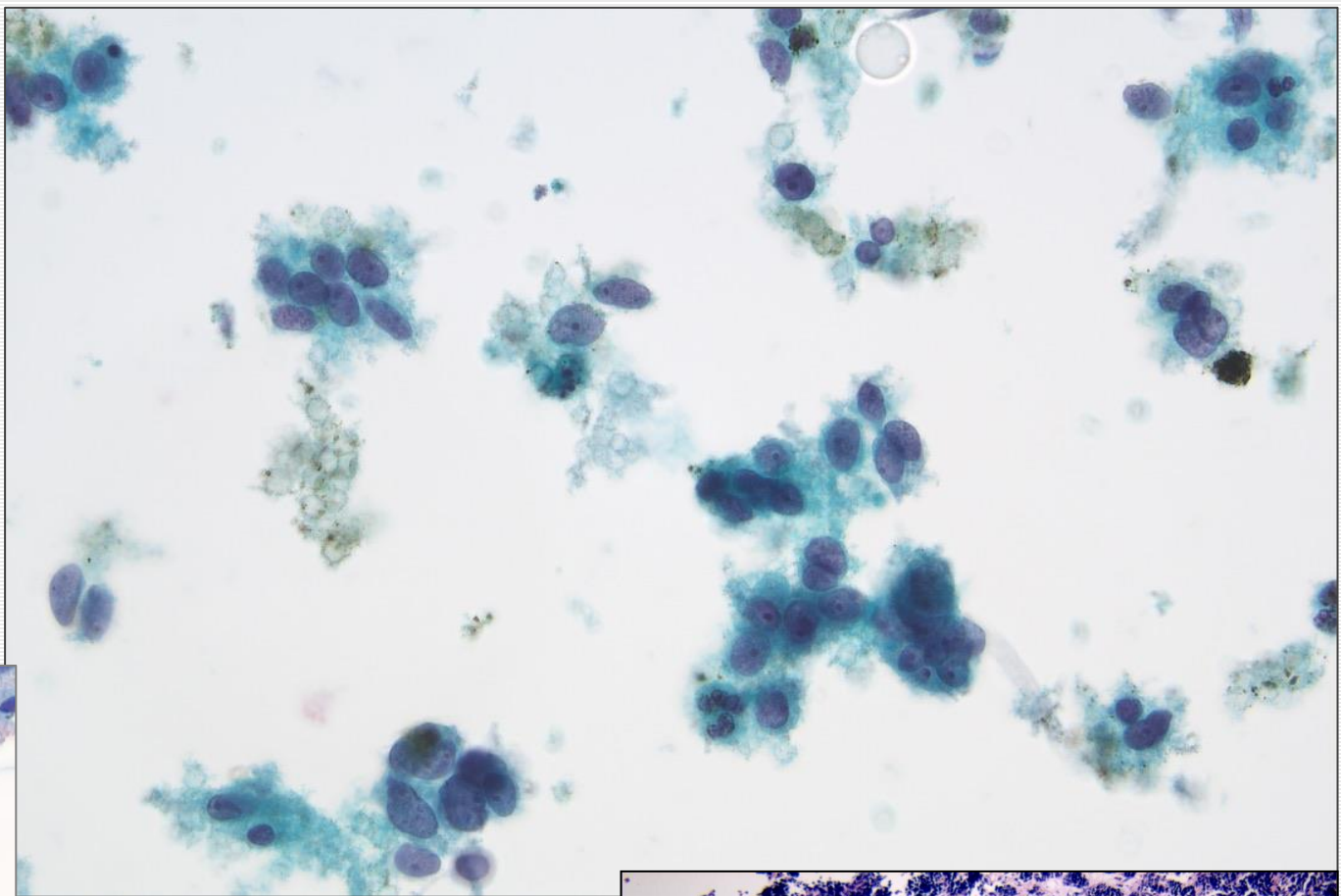
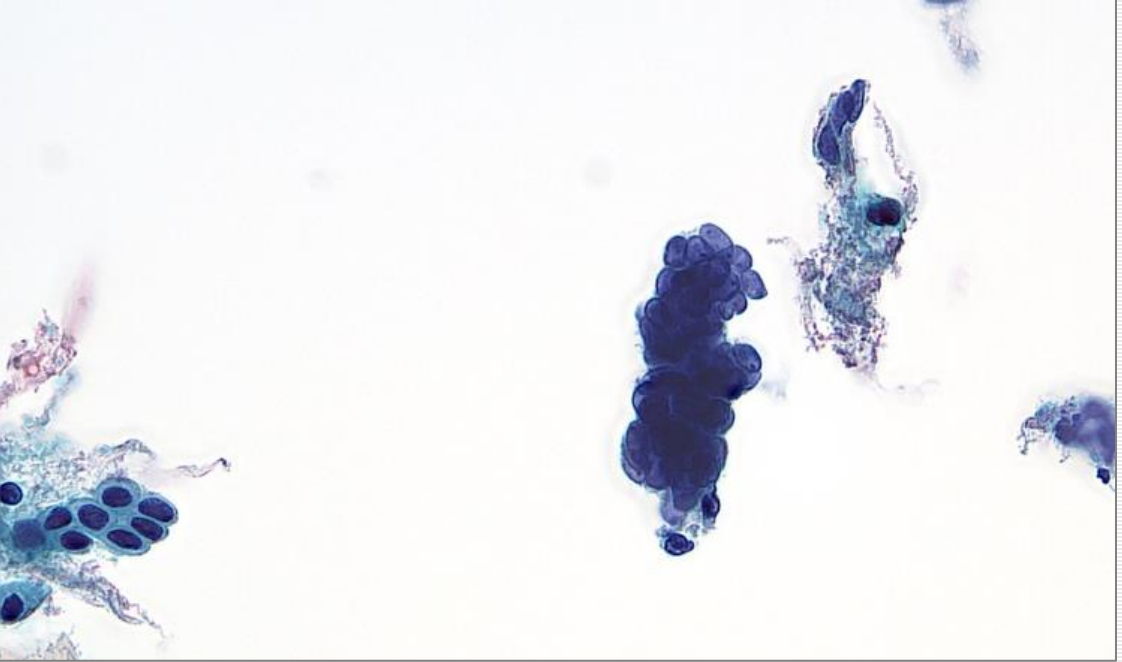
Maria Teresa Bruno ^{1,2,*} , Arianna Guaita ³, Sara Boemi ², Gabriele Mazza ¹, Maria Chiara Sudano ² and Marco Palumbo ¹

Test	Negative	CIN1	CIN2	CIN3	Ca	Overall
P16/Ki67						
positive	15	21	32	18	2	88 (27.2%)
negative	115	118	3	0	0	236 (72.8%)
HPV test DNA						
positive	19	81	34	17	2	153 (47.3%)
negative	111	58	1	1	0	171 (52.7%)
Overall	130 (40.1%)	139 (42.9%)	35 (10.8%)	18 (5.5%)	2 (0.6%)	324

CIN, Cervical Intraepithelial Neoplasia; Ca, Carcinoma. hrHPV: all hrHPV except HPV16.

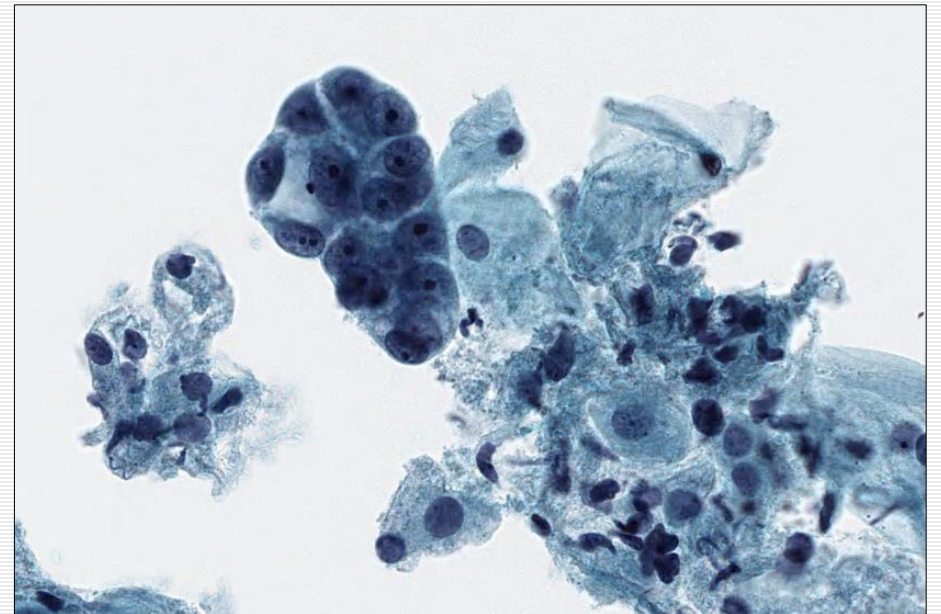
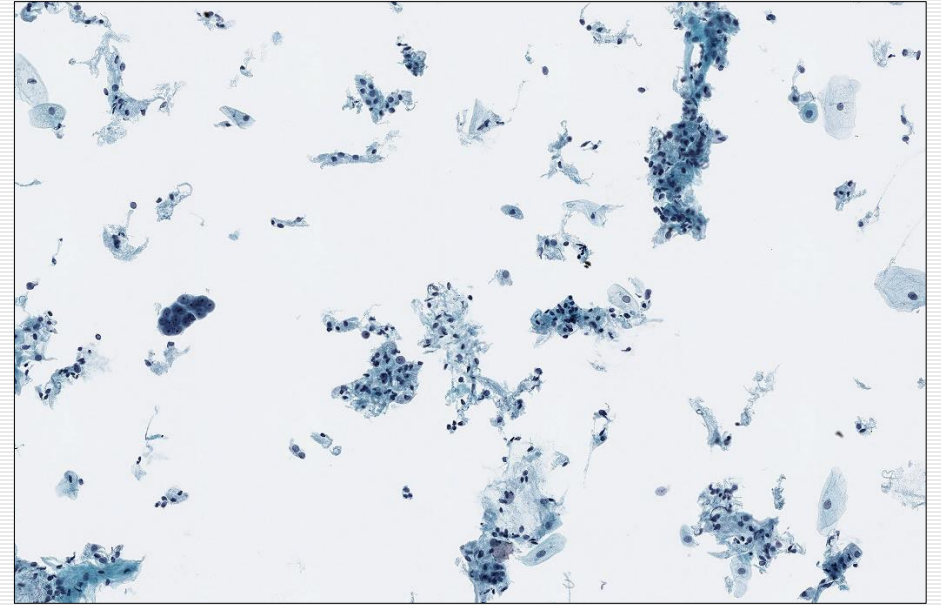
The p16/Ki67 sensitivity for CIN2+ was 94.5%, the specificity 86.6%, PPV of 59% and NPV of 95.9%.

The HPV test showed a sensitivity of 96.4% for CIN2+, a specificity of 62.8%, a PPV of 35% and a NPV of 98.8%.

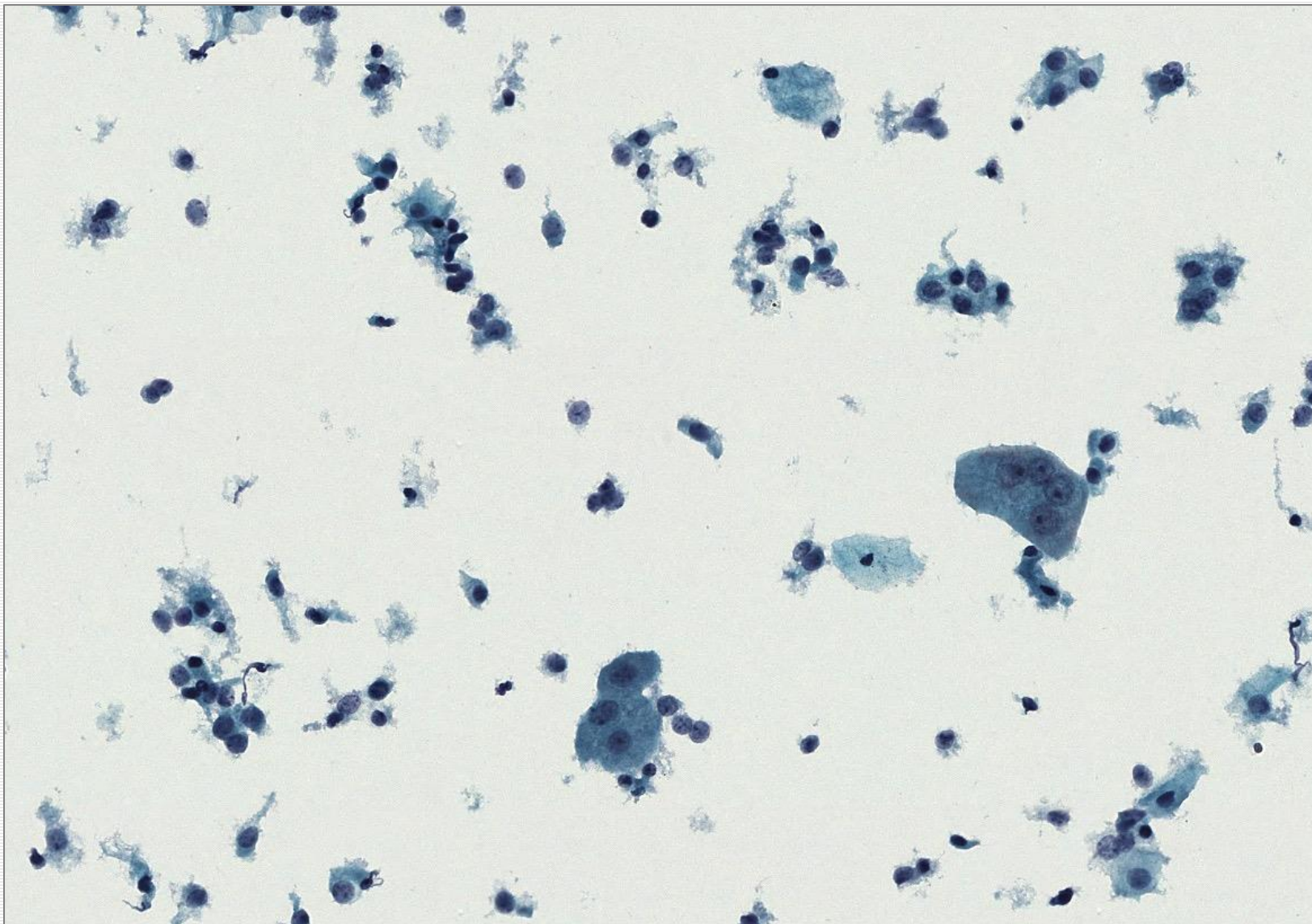


Endometrial cancer, metastasis of extra-uterine tumors

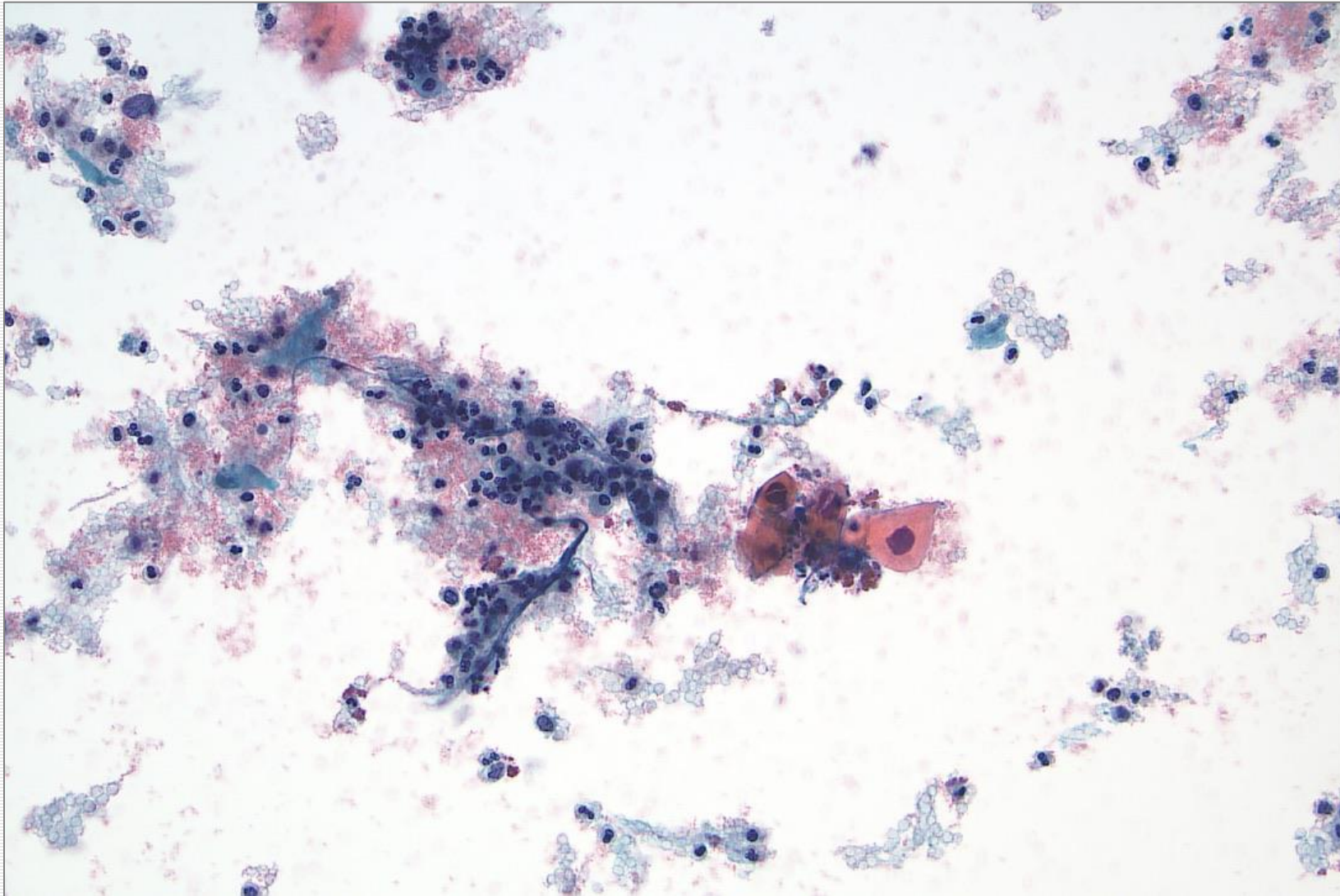
- Low cellularity, clusters with nuclear enlargement, nucleoli.
- Mostly clean background
- Metastasis mostly adenocarcinomas (ovary)

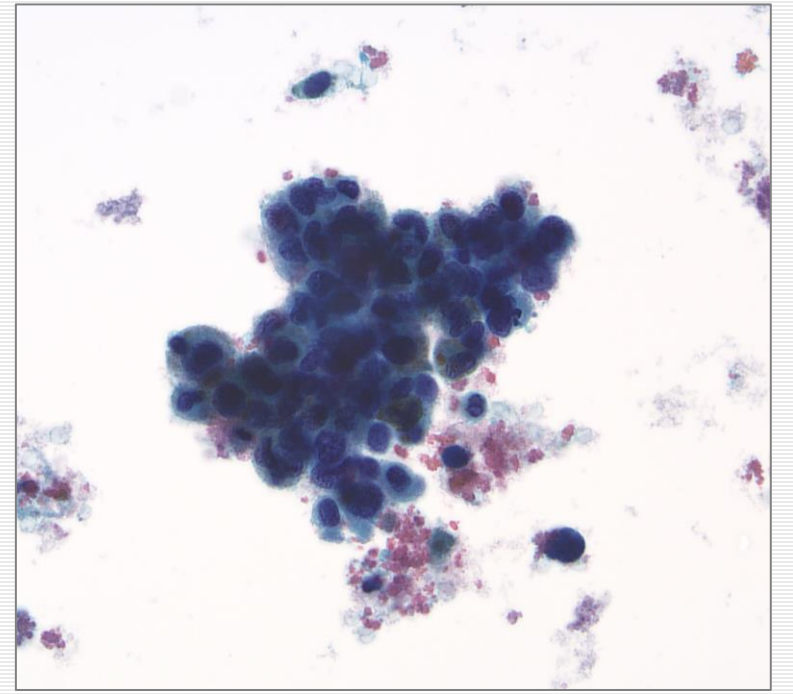
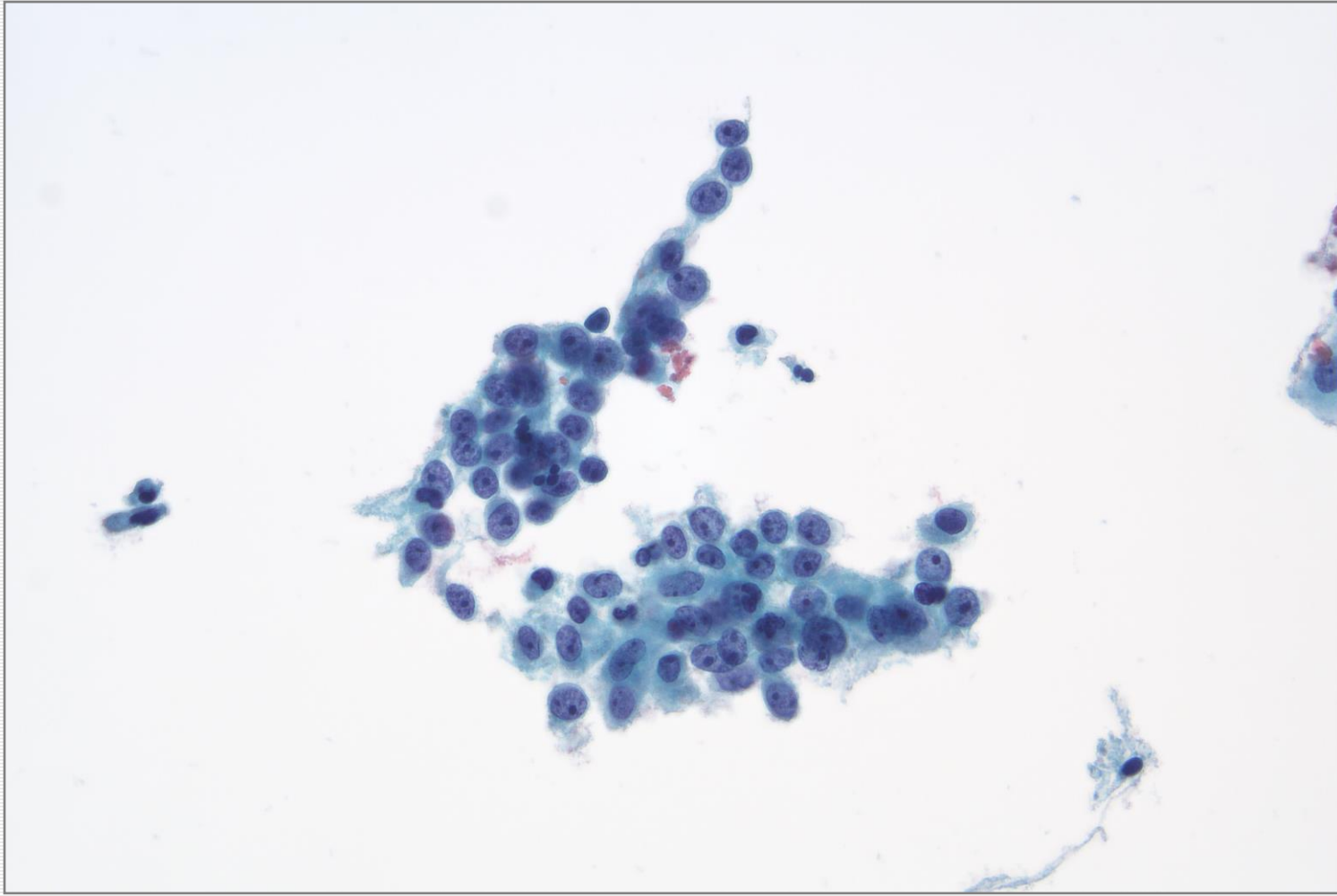


Contaminazione da urotelio

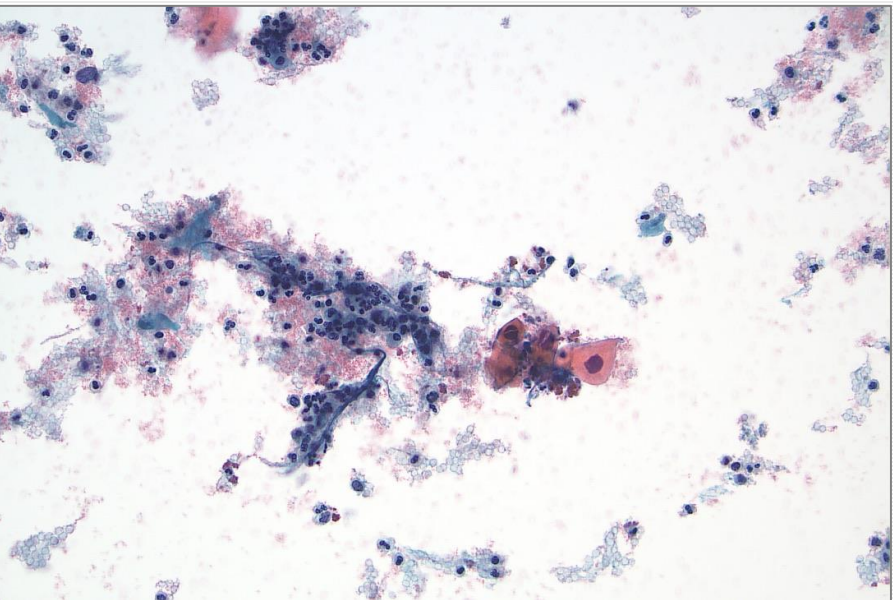
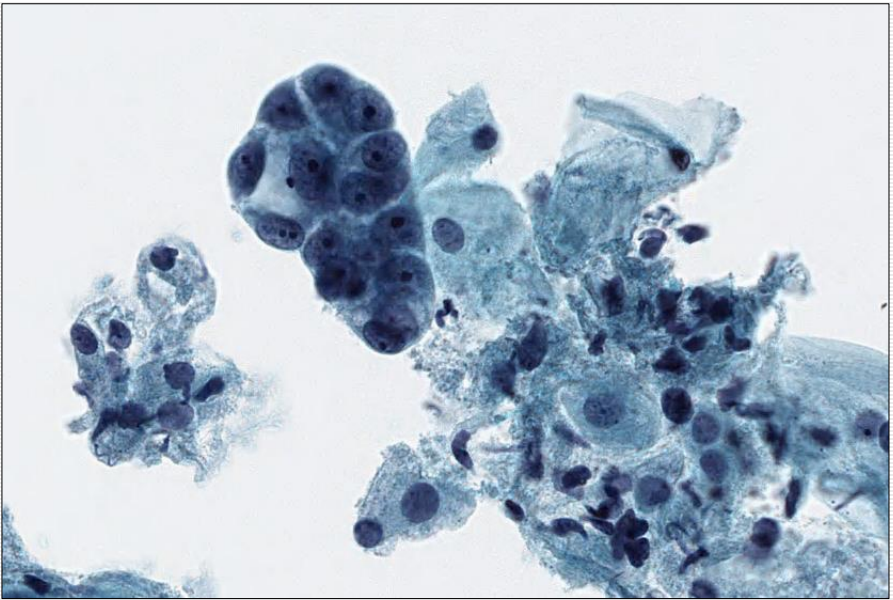
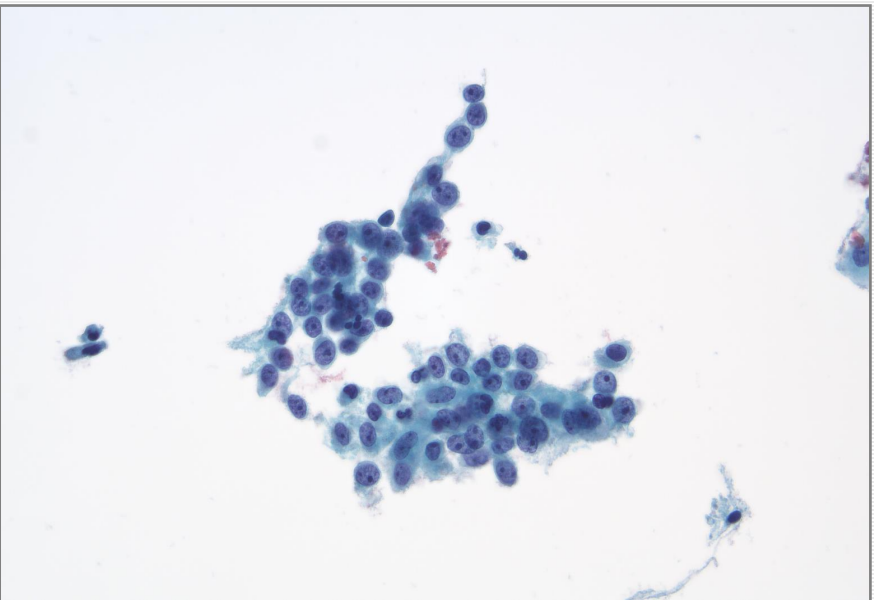
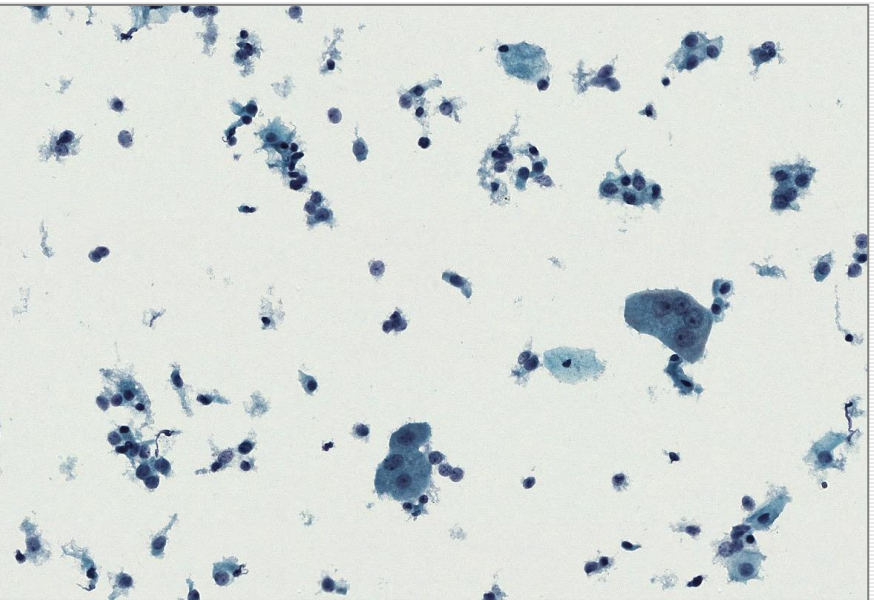


Contaminazione da CASQ vulvare HPV-





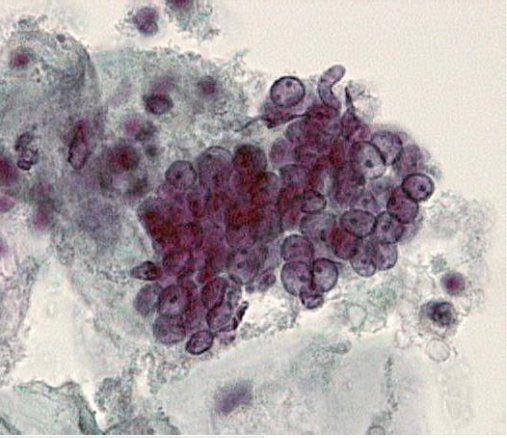
HPV-negativi



Take-home message

- L'atrofia può causare problemi soprattutto nell'inquadramento classificativo della citologia di triage.
- Decisiva è l'osservazione del nucleo: polimorfia, membrane, distribuzione della cromatina, n/c.
- Buona parte delle DD più importanti riguarda patologie rare nel triage di donne HPV+

Grazie per l'attenzione



The Small Blue Cell Dilemma Associated With Tamoxifen Therapy

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Jeannette Bellerdine, MS, SCT(ASCP); Celeste N. Powers, MD, PhD

● **Context.**—Several endometrial diseases, such as endometrial hyperplasia, endometrial carcinoma, and endometrial polyps, have been reported to be associated with tamoxifen administration. We recently observed a high incidence of distinctive small blue cells in Papanicolaou tests of women who had received tamoxifen treatment for breast carcinoma.

Objectives.—To define the characteristics of these small blue cells, to identify the patient population in which they are found, and to determine the clinical significance and possible etiology of these findings.

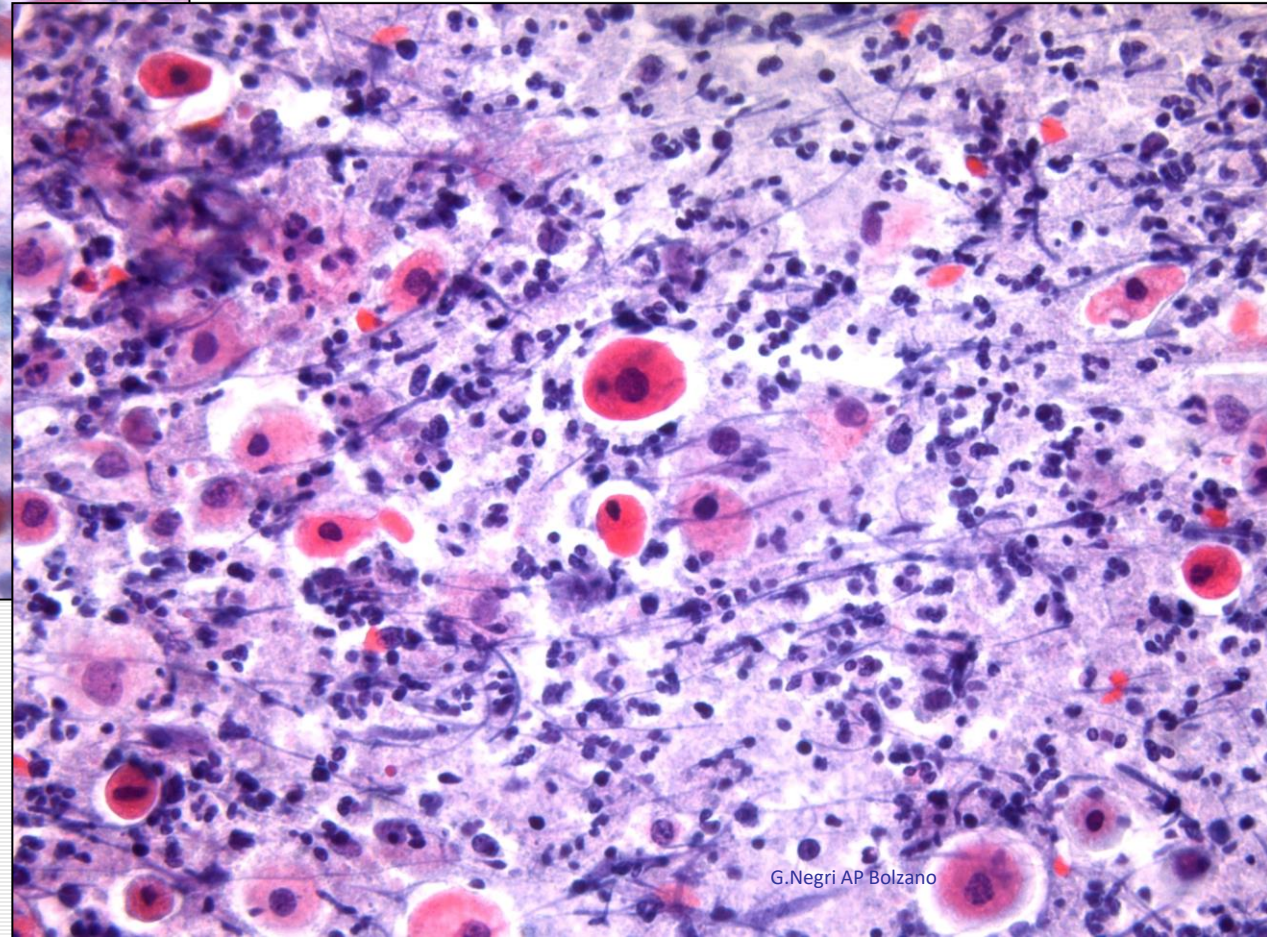
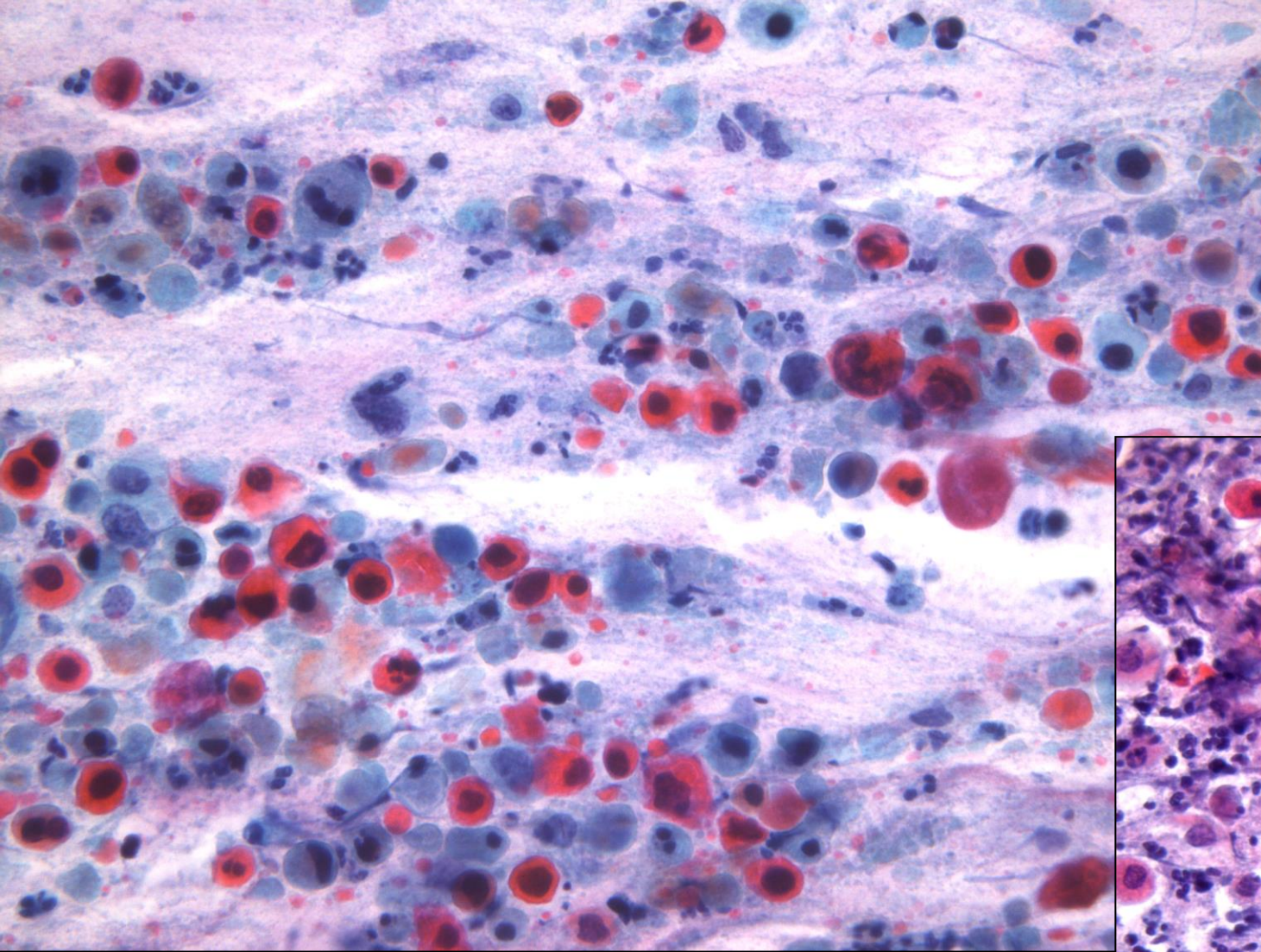
Design.—A total of 154 Papanicolaou tests from 60 patients with a clinical history of tamoxifen therapy were reviewed retrospectively.

Results.—Small blue cells were found in 40% of Papanicolaou tests from patients who received tamoxifen therapy. Patients with small blue cells in their Papanicolaou tests were an average of 9 years older at the time tamoxifen therapy was initiated than those without. Among the available follow-up surgical biopsies, no malignant diagnoses were made.

Conclusions.—We conclude that these distinctive small blue cells are found more frequently in older patients and most probably represent proliferative reserve cells of cervical/vaginal epithelium resulting from the estrogenic agonist effect of tamoxifen. More importantly, they are non-neoplastic in nature.

(*Arch Pathol Lab Med.* 2001;125:1047–1050)

HSIL and cancer in atrophy



Mind the n/c ratio and nuclear atypia!