

Labquality Cytology 1-2014

Lissabon 16.1.2015

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Cytopathology 2015.1. Case 1

- **Case 1.**
- Female 60 years. Menopause 8 years ago. 6 months earlier mild abnormal changes in pap-smear. Now repeat pap-smear.
- The present sample showed abundant dense clusters of cells, consisting of atypical endocervical-like columnar epithelial cells. Moderate nuclear pleomorphism, hyperchromasia and nuclear palisading and feathering was observed. Occasional mitotic figures were observed in the cell clusters.

Case 1. -2

- **Initial cytological diagnosis: Adenocarcinoma in situ, Papanicolaou class 4.**
- The histological sample showed adenocarcinoma in situ of the cervix. No signs of invasive growth were seen.
- The changes seen were rather uniformly considered malignant or suspicious for malignancy by a clear majority of the respondents (Papanicolaou classes 3 - 5) 86,5%. The most common diagnosis was adenocarcinoma in situ (AIS) (33,5%). The most common Papanicolaou class was class 4 (55,6%) and the second most common was class 3 (16,1%).

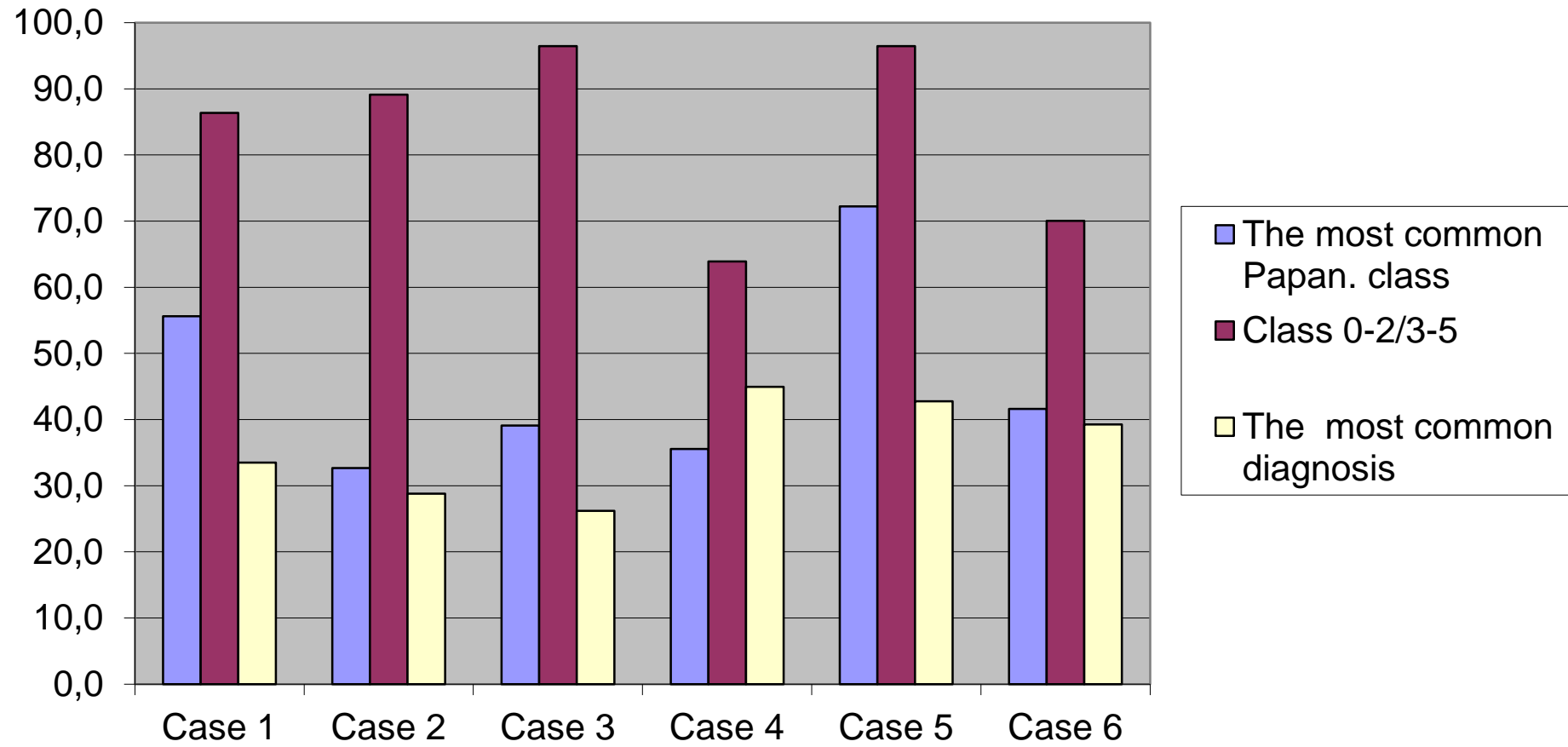
Diagnostic agreement %

Diagnostic agreement %	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Average
The most common Papan. class	55,6	32,7	39,1	35,6	72,2	41,6	46,1
Class 0-2/3-5	86,3	89,1	96,4	63,9	96,5	70,1	83,7
The most common diagnosis	33,5	28,8	26,2	45,0	42,8	39,3	35,9

Diagnosis	Case 1
Normal	1
Inflammation/regeneration	5
Atrophic vaginitis	3
ASC-US	5
ASC-H	2
Low grade SIL, LSIL	
High grade SIL, HSIL	7
Squamous cell carcinoma, also susp.	
Benign endometrium	9
AGC-NOS	13
AGC-NOS, endocervical cells	3
AGC-NOS, endometetrial cells	2
AGC-FN	23
AGC-FN, endocervical cells	42
AGC-FN, endometrial cells	8
Adenocarcinoma in situ, AIS	71
Cervical adenocarcinoma	12
Endometrial adenocarcinoma	6
Extrauterine adenocarcinoma	
Sum	212
Number of respondents	212
Result not entered	29

GYNAECOLOGICAL CYTOLOGY 1, 2014						
Papanicolaou class	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Class 0	1	2	4		2	3
Class 1	5	3		1	46	53
Class 2	22	17	3	69	143	82
Class 3	33	58	39	44	7	57
Class 4	114	56	77	56		2
Class 5	30	66	74	24		
Sum	205	202	197	194	198	197

Diagnostic agreement



Cytopathology 2015.1. Case 2

- **Case 2.**
- Female, 73 years. Menopause 20 years ago. Previous pap-smear 18 years ago, which showed no abnormality (NILM). Recently bloody vaginal discharge for two weeks. Pap-smear.
- The present sample showed relatively few dense clusters of cells, consisting of atypical endometrial-like epithelial cells. Moderate nuclear pleomorphism with large nuclei and prominent nucleoli. The changes are suggestive of an endometrial lesion.

Case 2. -2

- **Initial cytological diagnosis: Atypical glandular cells, favor neoplasia (AGC-FN), endometrial cells, Papanicolaou class 4.**
- The histological sample of endometrium showed endometrioid adenocarcinoma, G2. Lymph node metastasis was detected in 9/35 regional lymph nodes.
- A clear majority of the respondents (89,1%) considered the changes malignant or suspicious for malignancy (Papanicolaou classes 3-5) The most common diagnosis was endometrial adenocarcinoma (29,1. %). The most common Papanicolaou class was class 5 (32,7%) and the second most common was class 3 (28,7%).

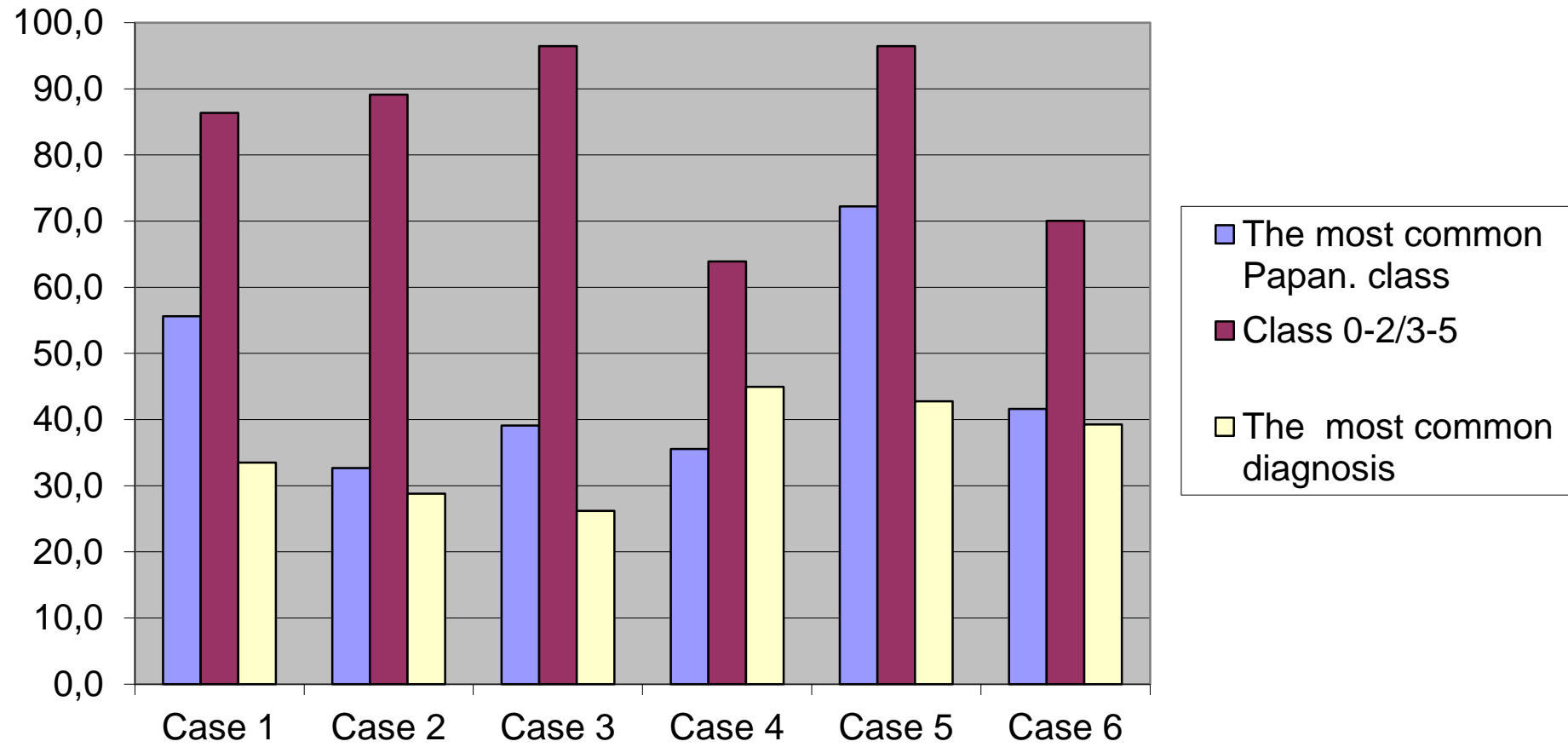
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GYNAECOLOGICAL CYTOLOGY 1, 2014						
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Class 2	22	17	3	69	143	82
Class 3	33	58	39	44	7	57
Class 4	114	56	77	56		2
Class 5	30	66	74	24		
Sum	205	202	197	194	198	197

Diagnosis	Case 2
Normal	4
Fungal organism	1
Inflammation/regeneration	4
ASC-US	3
ASC-H	6
Low grade SIL, LSIL	
High grade SIL, HSIL	3
Squamous cell carcinoma, also susp.	1
Benign endometrium	5
AGC-NOS	11
AGC-NOS, endocervical cells	
AGC-NOS, endometetrial cells	34
AGC-FN	16
AGC-FN, endocervical cells	3
AGC-FN, endometrial cells	35
Adenocarcinoma in situ, AIS	3
Cervical adenocarcinoma	6
Endometrial adenocarcinoma	61
Extrauterine adenocarcinoma	15
Other malignant neoplasm	
Other	1
Sum	212
Number of respondents	210
Result not entered	29

Diagnostic agreement



Cytopathology 2013.1. Case 3

- **Case 3.**
- Female 69-years. 6 months earlier ASC-H and AGC. Ectocervix was abnormal. Now repeat pap-smear.
- The present sample showed haemorrhagic background with necrotic debris. Clusters of atypical columnar epithelial cells with atypical nuclei and occasional prominent nucleoli were seen. Also some tubular or glandular structures could be detected in the cell clusters.

Case 3. -2

- **Initial cytological diagnosis: Carcinoma, (adenocarcinoma?), Papanicolaou class 5.**
- Histological sample of the uterine cervix showed a moderately differentiated adenocarcinoma.
- In addition adenocarcinoma of the sigmoid colon was diagnosed. Immunohistologically the cervix lesion was positive for cytokeratin 20 and CDX 2, negative for cytokeratin 7. The cervical lesion was thus consistent with metastatic growth of the colonic adenocarcinoma.
- The sample was almost unanimously considered malignant or suspicious for malignancy class 3 - 5 (96,4%). The most common diagnosis was squamous cell carcinoma or suspicious for carcinoma (26,2 %). The second most common diagnosis was HSIL. The most common Papanicolaou class was class 4 (39 %) and the second most common Papanicolaou class was class 5 (37,5%).

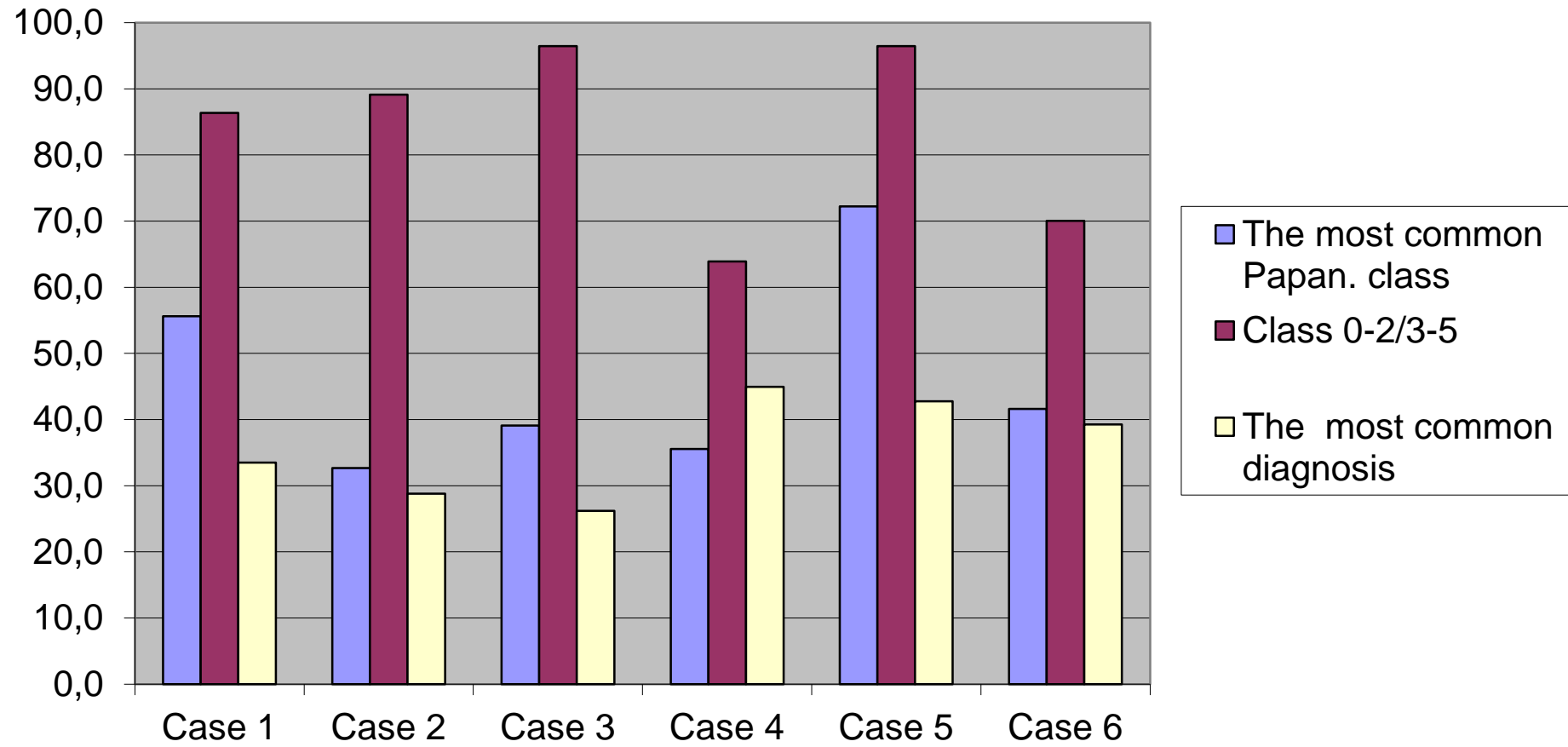
Diagnosis	Case 3
Normal	
Inflammation/regeneration	2
ASC-US	
ASC-H	9
Low grade SIL, LSIL	1
High grade SIL, HSIL	47
Squamous cell carcinoma, also susp.	54
Benign endometrium	
AGC-NOS	8
AGC-NOS, endocervical cells	3
AGC-NOS, endometetrial cells	
AGC-FN	15
AGC-FN, endocervical cells	16
AGC-FN, endometrial cells	3
Adenocarcinoma in situ, AIS	1
Cervical adenocarcinoma	32
Endometrial adenocarcinoma	4
Extrauterine adenocarcinoma	6
Other malignant neoplasm	1
Other	4
Sum	206
Number of respondents	205
Result not entered	29

GYNAECOLOGICAL CYTOLOGY 1, 2014						
Papanicolaou class	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Class 0	1	2	4		2	3
Class 1	5	3		1	46	53
Class 2	22	17	3	69	143	82
Class 3	33	58	39	44	7	57
Class 4	114	56	77	56		2
Class 5	30	66	74	24		
Sum	205	202	197	194	198	197

Diagnostic agreement %

Diagnostic agreement %	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Average
The most common Papan. class	55,6	32,7	39,1	35,6	72,2	41,6	46,1
Class 0-2/3-5	86,3	89,1	96,4	63,9	96,5	70,1	83,7
The most common diagnosis	33,5	28,8	26,2	45,0	42,8	39,3	35,9

Diagnostic agreement



Cytopathology 2013.1. Case 4

- **Case 4.**
- Female 28-years. 3 years ago normal pap-smear. Two months ago HSIL. Now colposcopy and control pap-smear.
- The present sample showed an intense inflammatory reaction with regenerative cellular changes. In addition numerous multinucleated giant cells with pale nuclei and prominent nuclear inclusions were seen. The changes are consistent with genital herpes virus infection.

Case 4. -2

- **Initial cytological diagnosis: Herpes genitalis, Papanicolaou class 2.**
- Histological samples of the ectocervix showed ulceration, severe inflammatory changes and multinucleated giant cells consistent with herpes virus infection. No dysplastic changes were seen. Also no atypical changes in the endocervical epithelium were seen. Subsequent pap smears were normal, nilm.
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- The most common diagnosis reported by the respondents was herpes genitalis, 45%. The most common Papanicolaou class was class 2 (35,6 %). However, a large share of the respondents suggested also a neoplastic lesion based on the severe atypia caused by the inflammatory reaction and regeneration of the epithelium, Papanicolaou class 3 - 5 (63,9%).

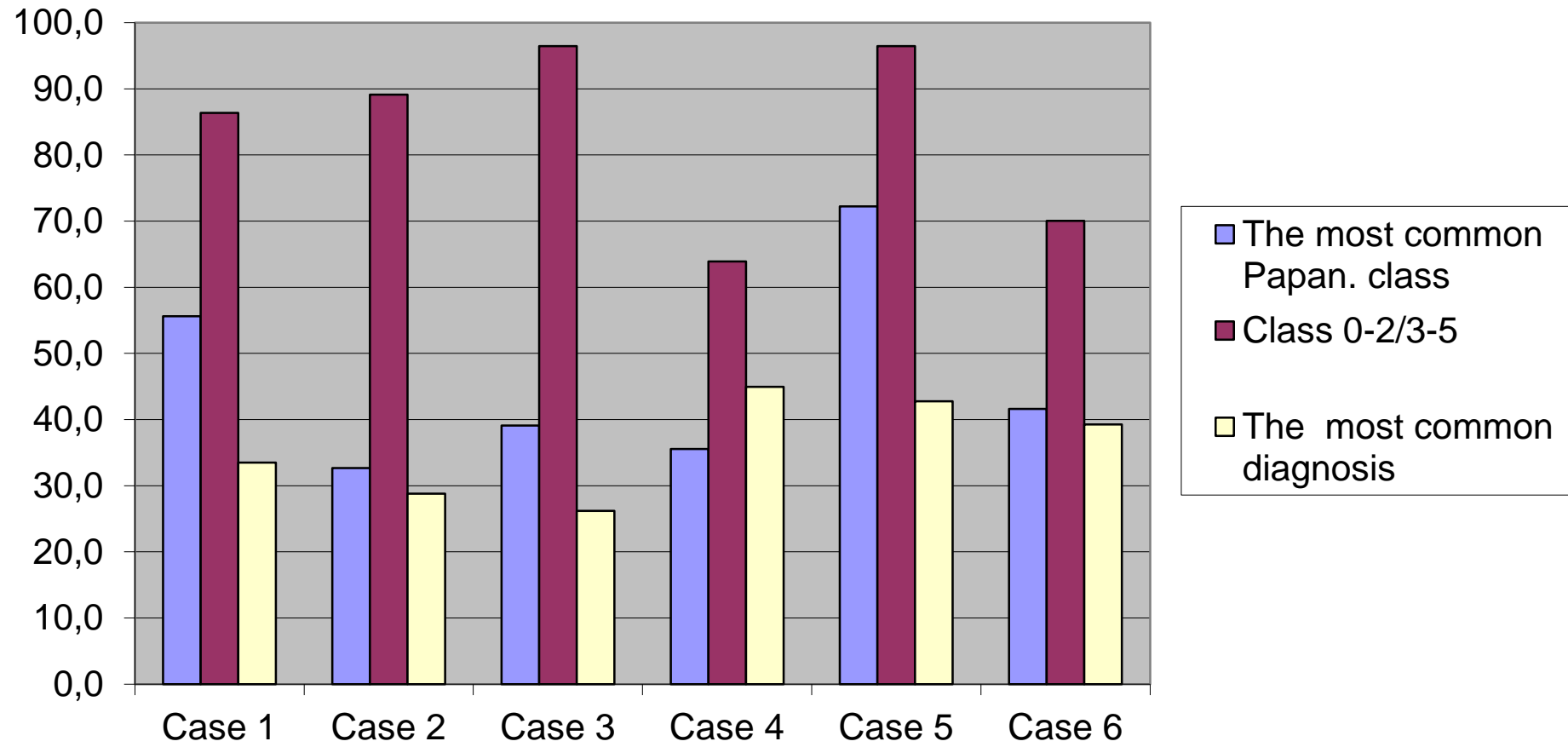
Diagnosis	Case 4
Normal	
Herpes	107
Inflammation/regeneration	7
Atrophic vaginitis	
ASC-US	
ASC-H	9
Low grade SIL, LSIL	2
High grade SIL, HSIL	76
Squamous cell carcinoma, also susp.	11
Benign endometrium	
AGC-NOS	7
AGC-NOS, endocervical cells	
AGC-NOS, endometetrial cells	1
AGC-FN	
AGC-FN, endocervical cells	3
AGC-FN, endometrial cells	
Adenocarcinoma in situ, AIS	3
Cervical adenocarcinoma	4
Endometrial adenocarcinoma	1
Extrauterine adenocarcinoma	5
Other malignant neoplasm	2
Other	
Sum	238
Number of respondents	205
Result not entered	29

GYNAECOLOGICAL CYTOLOGY 1, 2014						
Papanicolaou class	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Class 0	1	2	4		2	3
Class 1	5	3		1	46	53
Class 2	22	17	3	69	143	82
Class 3	33	58	39	44	7	57
Class 4	114	56	77	56		2
Class 5	30	66	74	24		
Sum	205	202	197	194	198	197

Diagnostic agreement %

Diagnostic agreement %	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Average
The most common Papan. class	55,6	32,7	39,1	35,6	72,2	41,6	46,1
Class 0-2/3-5	86,3	89,1	96,4	63,9	96,5	70,1	83,7
The most common diagnosis	33,5	28,8	26,2	45,0	42,8	39,3	35,9

Diagnostic agreement



Cytopathology 2013.1. Case 5

- **Case 5.**
- Female 63 years. Postmenopausal bleeding. No HRT. IUD removal. Pap-smear.
- The present sample showed mainly normal epithelial cells and among them oval organisms with faintly staining vesicular nuclei and eosinophilic cytoplasmic granules. In addition clusters and aggregates of various sizes consisting of actinomyces filaments were observed.

Case 5. -2

- **Initial cytological diagnosis: Trichomonas vaginalis and actinomyces. Papanicolaou class 2.**
- The diagnoses reported by the respondents were quite uniform. The sample was considered benign, Papanicolaou class 0 – 2 (96,5%). The most common diagnoses were Trichomonas vaginalis and actinomyces, 39% each. The most common Papanicolaou class was class 2 (72,2%). The second most common Papanicolaou class was class 1 (23%).

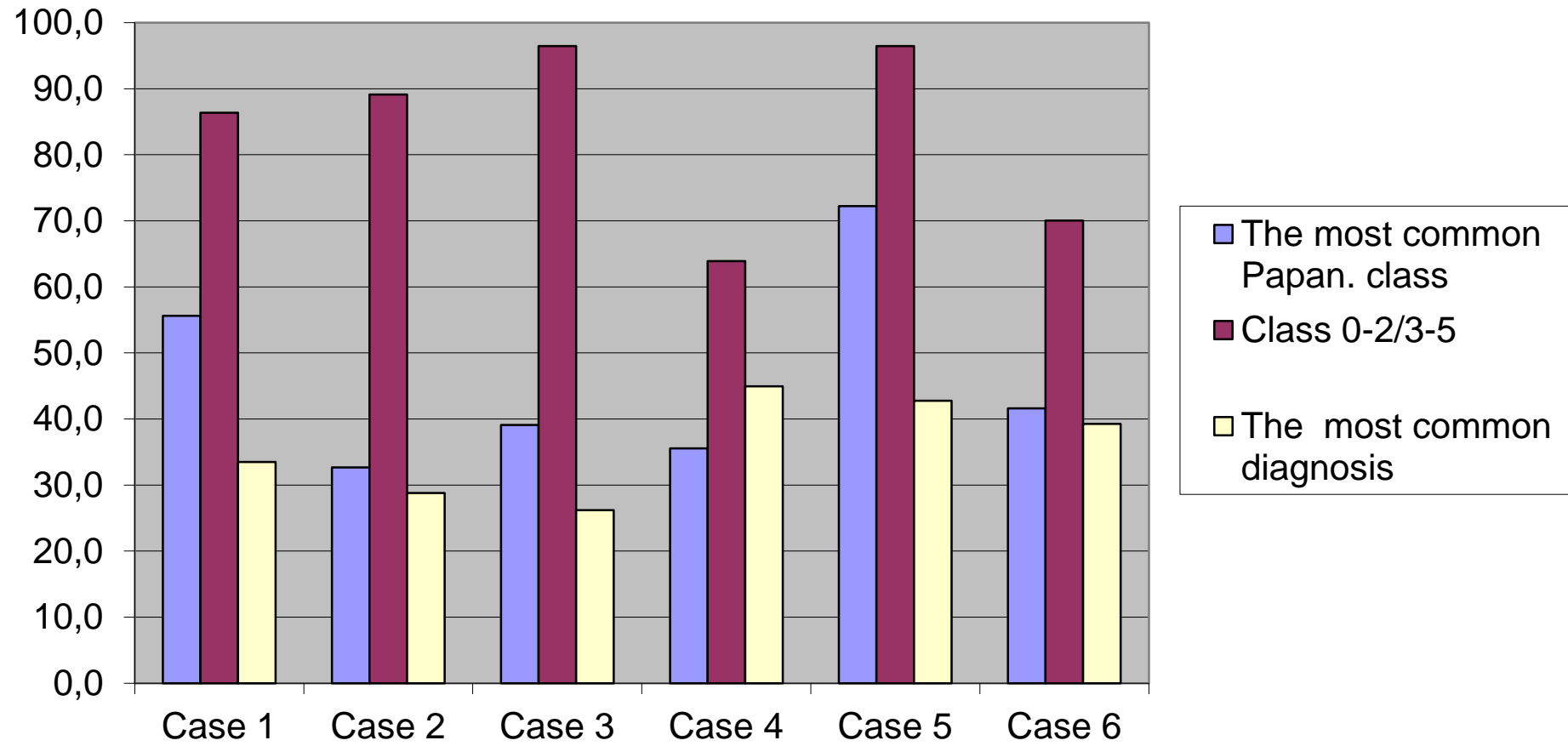
Diagnosis	Case 5
Normal	3
Trichomonas	125
Fungal organism	13
Actinomyces/ALO	130
Herpes	
Inflammation/regeneration	23
Atrophic vaginitis	2
Radiation change	
IUD change	3
ASC-US	3
ASC-H	
Low grade SIL, LSIL	
AGC-NOS, endometetrial cells	2
AGC-FN	
AGC-FN, endocervical cells	
AGC-FN, endometrial cells	
Sum	304
Number of respondents	206
Result not entered	29

GYNAECOLOGICAL CYTOLOGY 1, 2014						
Papanicolaou class	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Class 0	1	2	4		2	3
Class 1	5	3		1	46	53
Class 2	22	17	3	69	143	82
Class 3	33	58	39	44	7	57
Class 4	114	56	77	56		2
Class 5	30	66	74	24		
Sum	205	202	197	194	198	197

Diagnostic agreement %

Diagnostic agreement %	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Average
The most common Papan. class	55,6	32,7	39,1	35,6	72,2	41,6	46,1
Class 0-2/3-5	86,3	89,1	96,4	63,9	96,5	70,1	83,7
The most common diagnosis	33,5	28,8	26,2	45,0	42,8	39,3	35,9

Diagnostic agreement



Cytopathology 2013.1. Case 6

- **Case 6.**
- Female 51 years. 8 years earlier mild abnormal changes in pap-smear (ASC-US), once ASC-H. Now colposcopy and pap-smear.
- The present sample showed varying amounts inflammatory cells among the mostly normal epithelial cells. Mild nuclear atypia was occasionally seen in the epithelial cells due to inflammation and reparative changes.

Case 6. -2

- **Initial cytological diagnosis: Inflammation and regeneration, Papanicolaou class 2.**
- Histological samples of ecto- and endocervix showed signs of chronic cervicitis and repair. No neoplastic changes were observed. HPV-test was negative.
- The lesion was most frequently considered benign Papanicolaou classes 0 - 2 (70,1%). The most common diagnosis was inflammation and regeneration (39,3%). The most common Papanicolaou class was class 2 (41,6%).

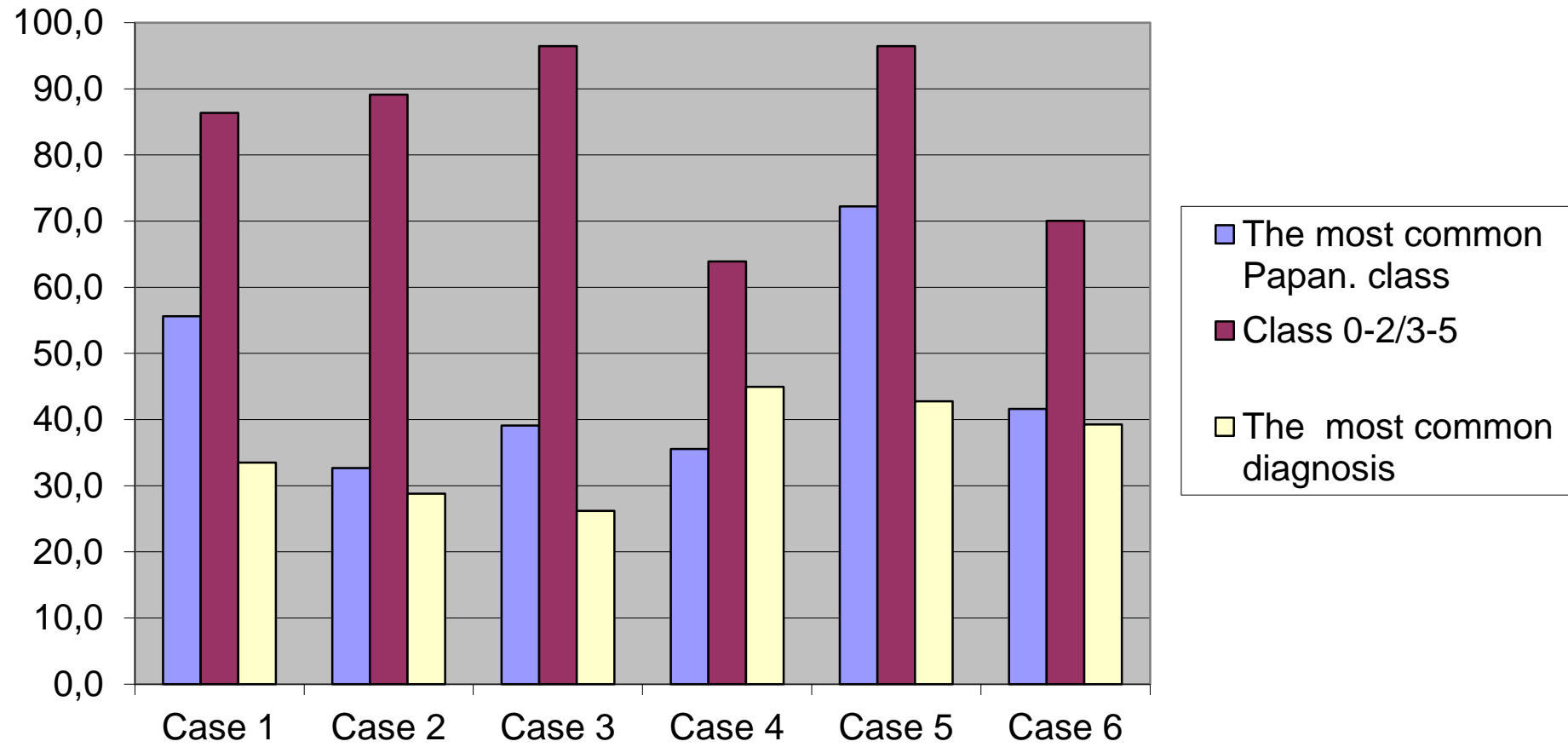
Diagnosis	Case 6
Normal	31
Trichomonas	3
Fungal organism	11
Actinomyces/ALO	1
Herpes	3
Inflammation/regeneration	84
Atrophic vaginitis	4
Radiation change	
IUD change	1
ASC-US	31
ASC-H	16
Low grade SIL, LSIL	22
High grade SIL, HSIL	3
Squamous cell carcinoma, also susp.	1
Benign endometrium	
AGC-NOS	2
AGC-NOS, endocervical cells	
AGC-NOS, endometetrial cells	1
AGC-FN	
Sum	214
Number of respondents	201
Result not entered	29

GYNAECOLOGICAL CYTOLOGY 1, 2014						
Papanicolaou class	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Class 0	1	2	4		2	3
Class 1	5	3		1	46	53
Class 2	22	17	3	69	143	82
Class 3	33	58	39	44	7	57
Class 4	114	56	77	56		2
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Diagnostic agreement %

Diagnostic agreement %	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Average
The most common Papan. class	55,6	32,7	39,1	35,6	72,2	41,6	46,1
Class 0-2/3-5	86,3	89,1	96,4	63,9	96,5	70,1	83,7
The most common diagnosis	33,5	28,8	26,2	45,0	42,8	39,3	35,9

Diagnostic agreement



Conclusions:

- Considerable variation
- Some diagnosis appeared clearly more uniform than others
 - malignant
 - specific lesions
- Should pay attention to improving concordance between pathologists
 - clinic
 - national
 - International