

XXVII. Martinský bioptický seminár SD-IAP

Hotel Victoria, 12-13.11.2021, Martin



MUDr. Juraj Marcinek, PhD.

Prípud SD-IAP 775



**Ústav patologickej anatomie a Konzultačné centrum
hematopatológie UNM a JLF UK**

❖ **Klinika: 45 ročná žena**

supravaginálna hystrektómia v 3/2020

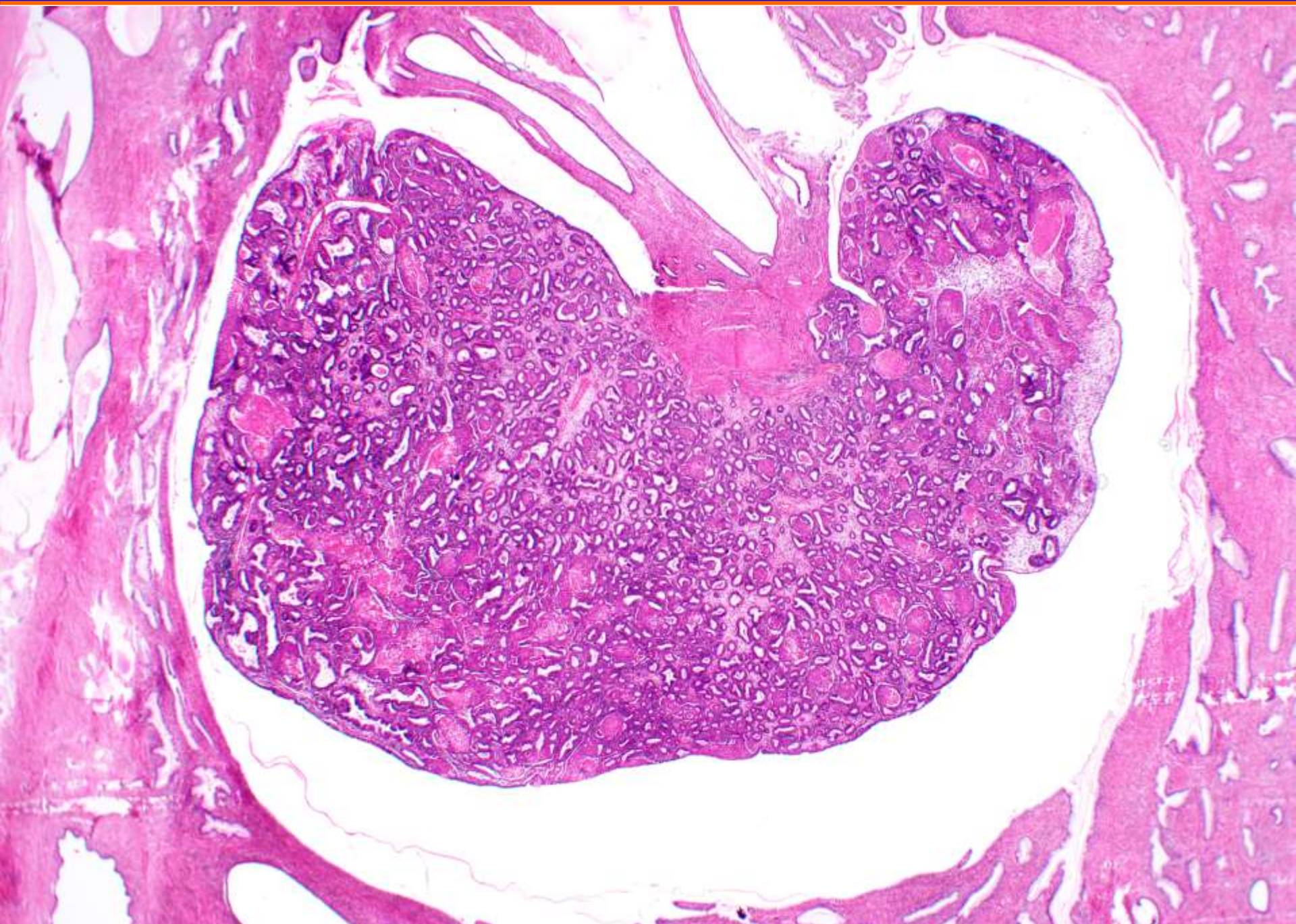
klinická dg.: uterus myomatosus

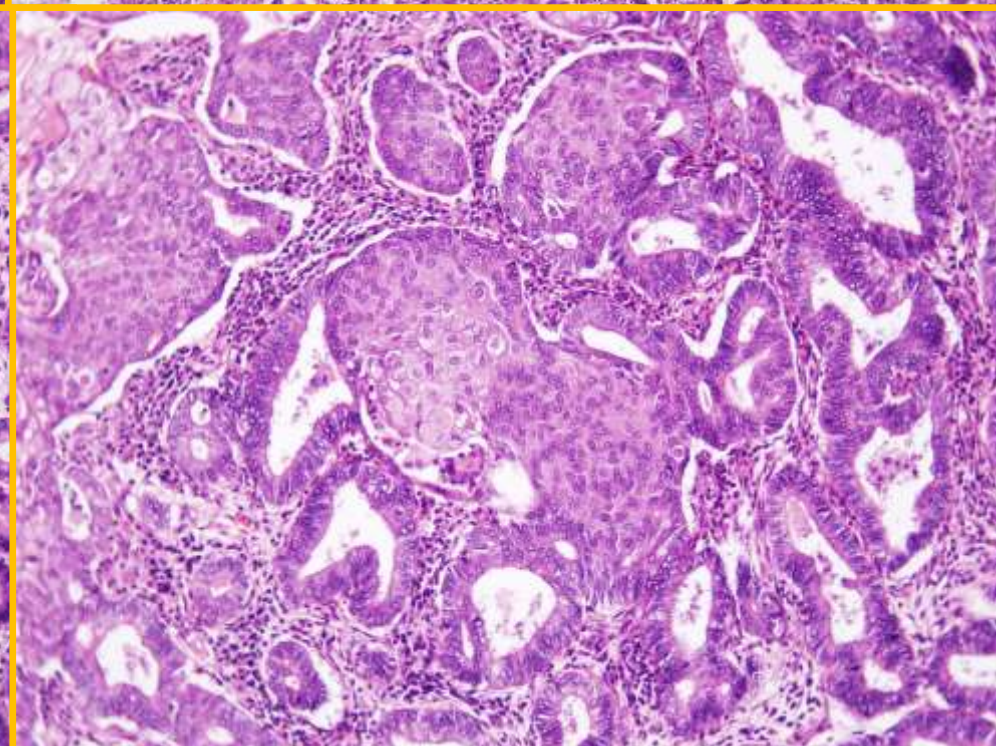
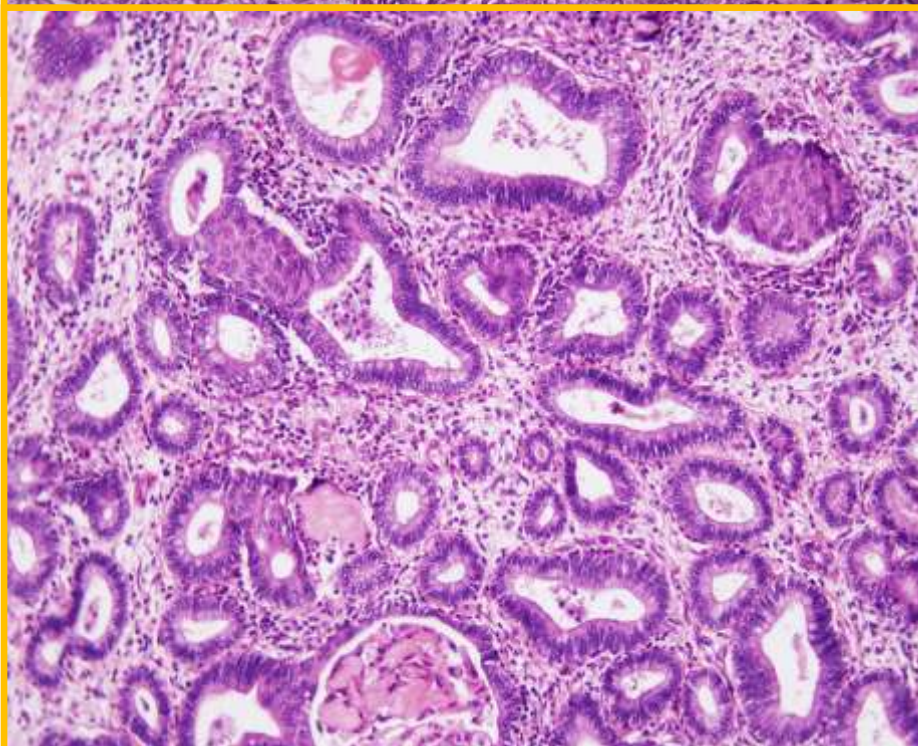
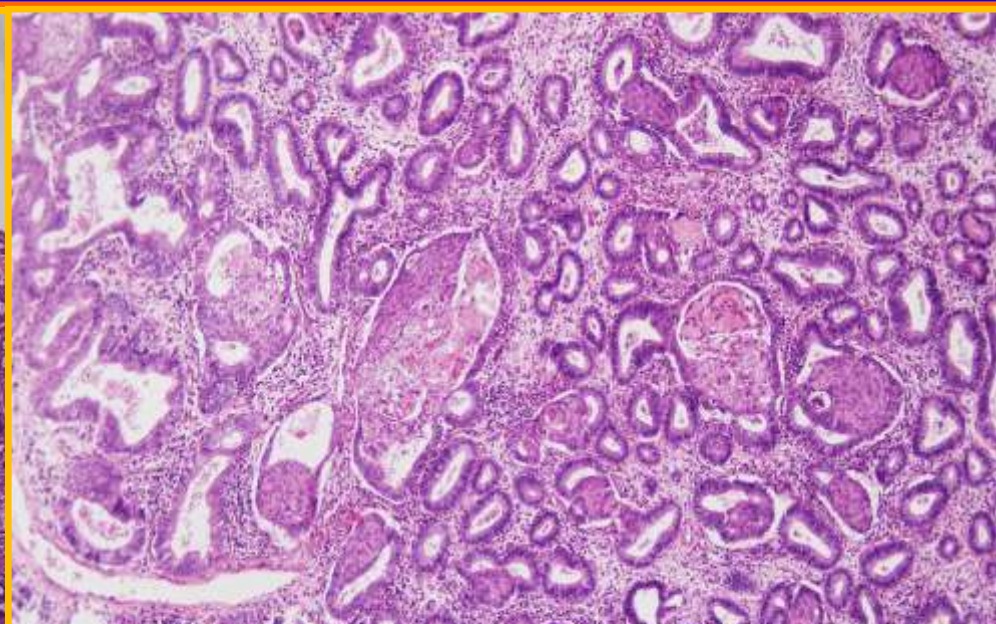
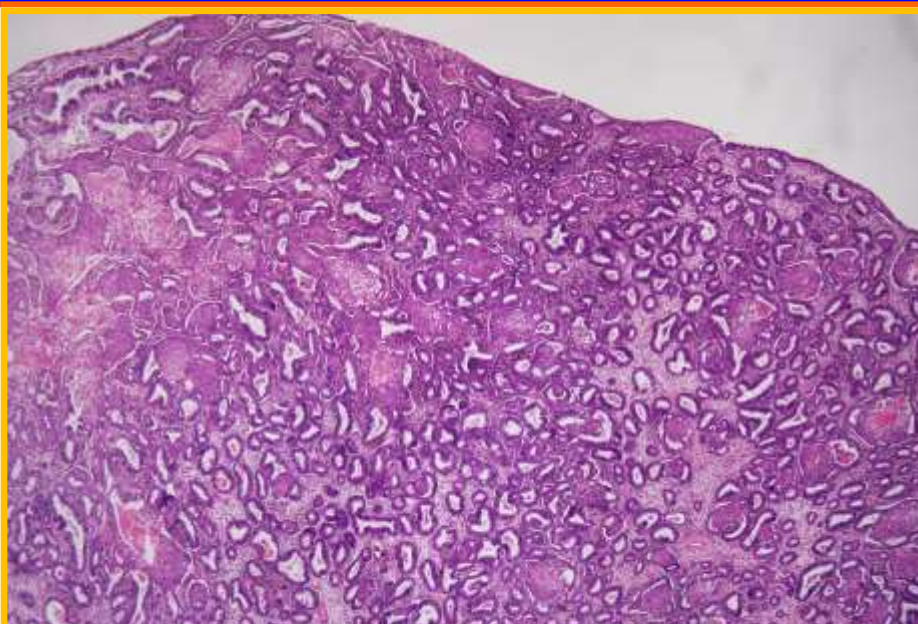
predmetom semináru je **náhodný nález endocervikálneho polypu**

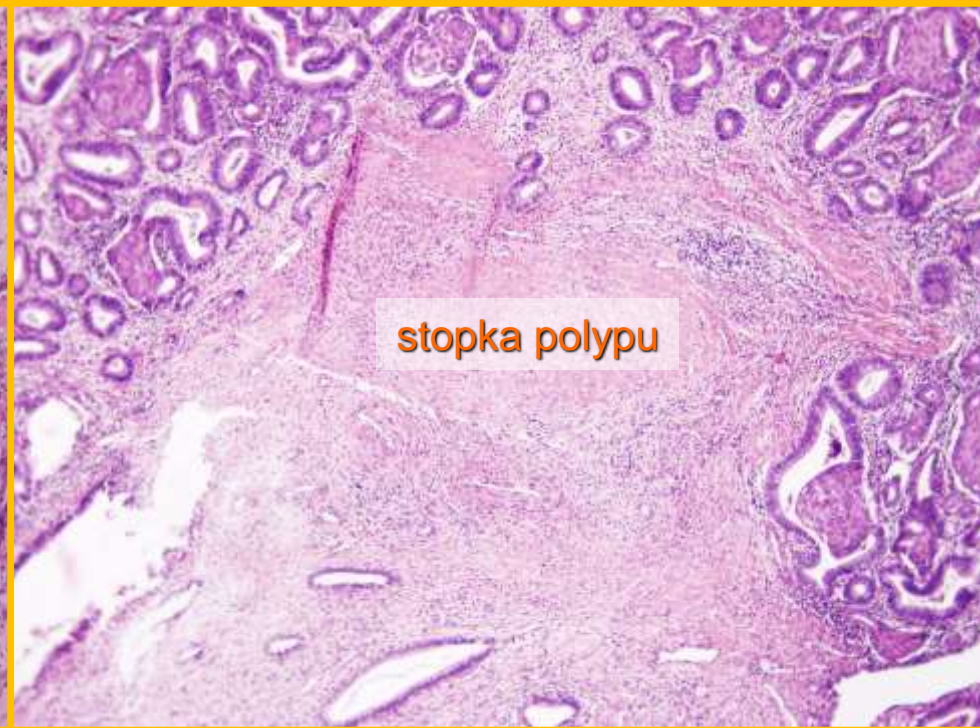
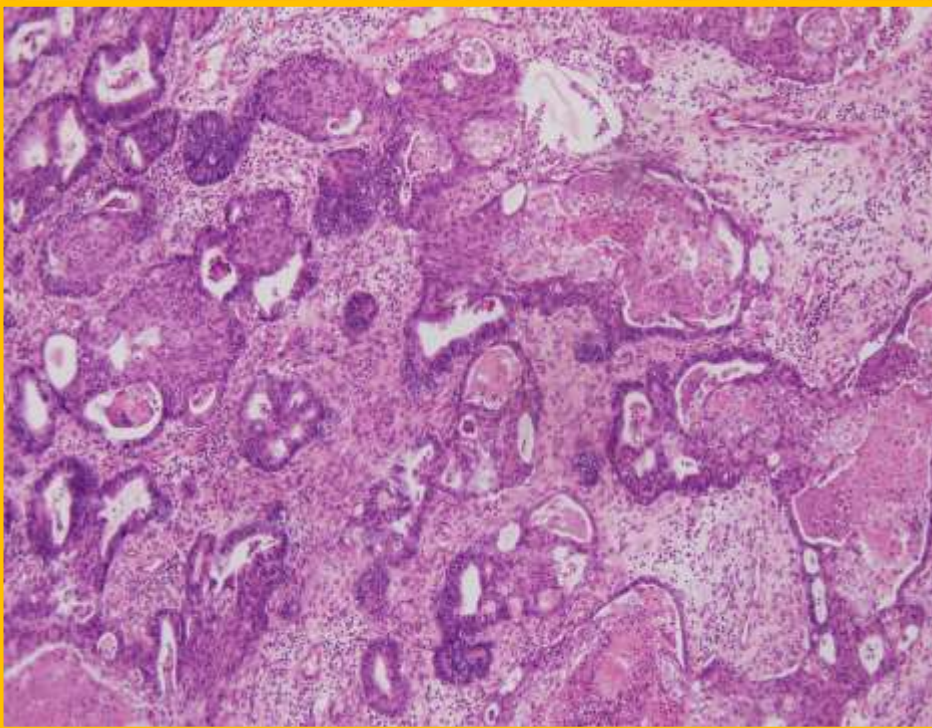
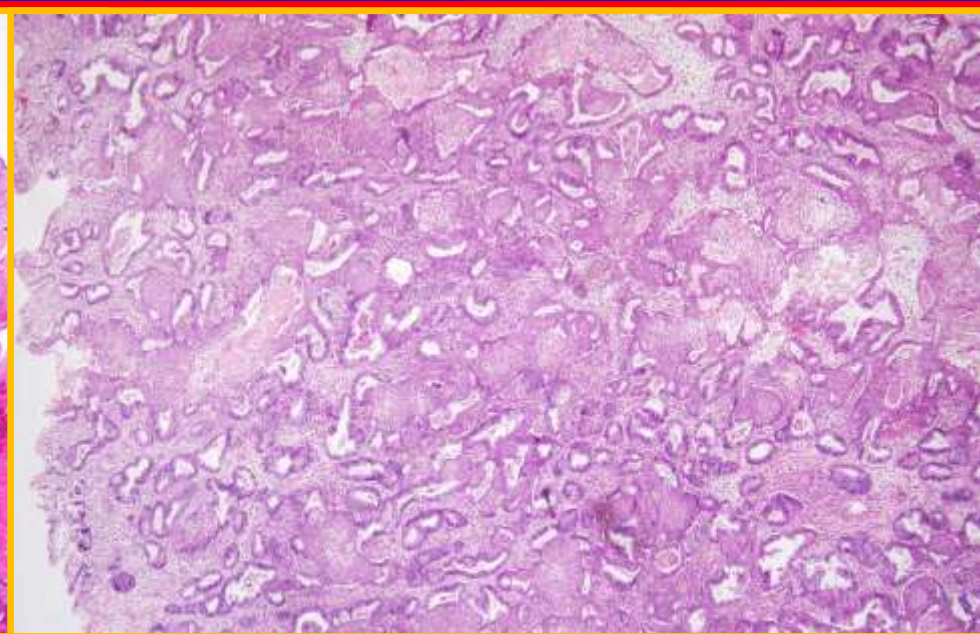
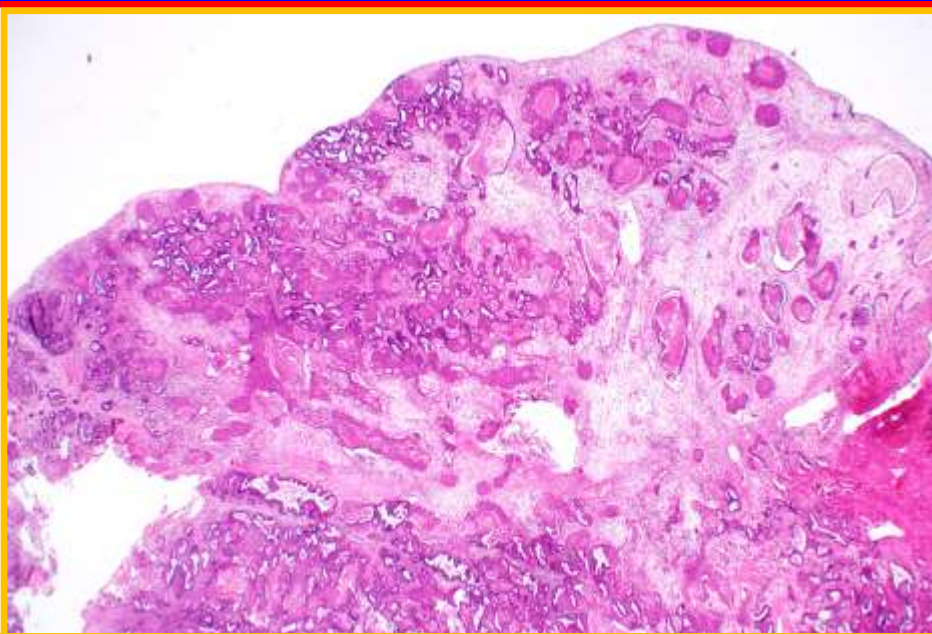
❖ **Makronález: v endocerixe uteru polypoidná lézia priemeru 1cm**

bez súvisu s endometriom

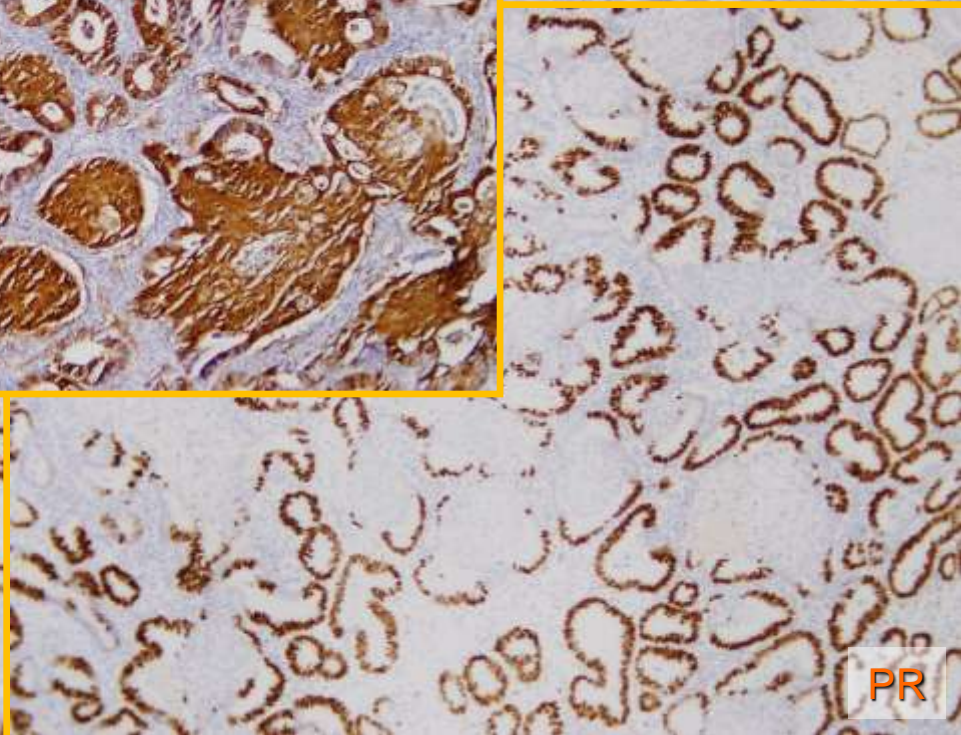
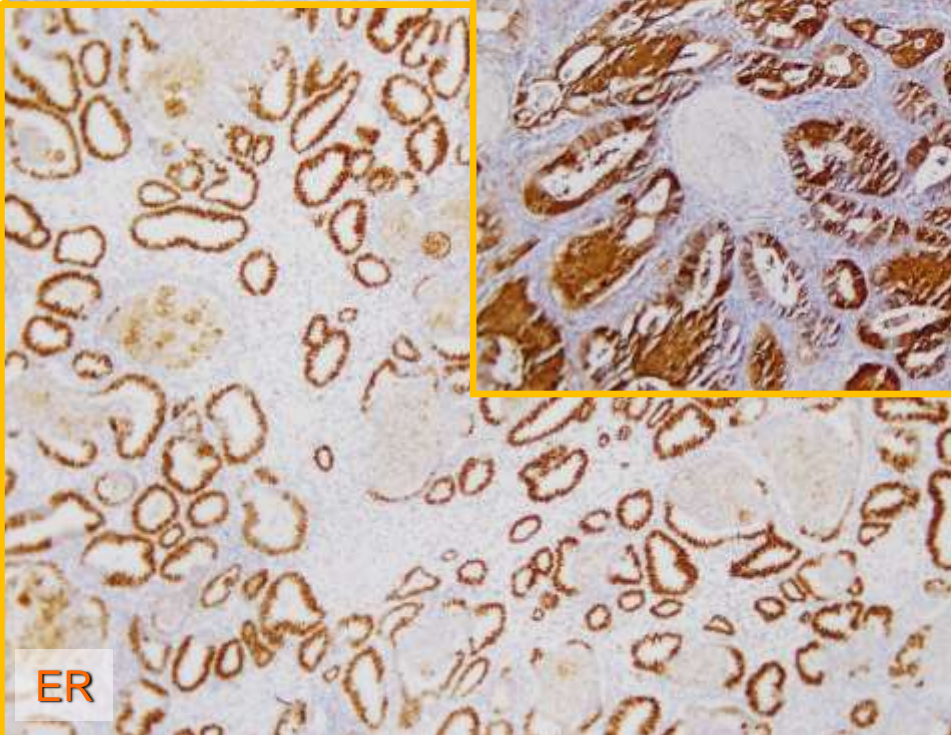
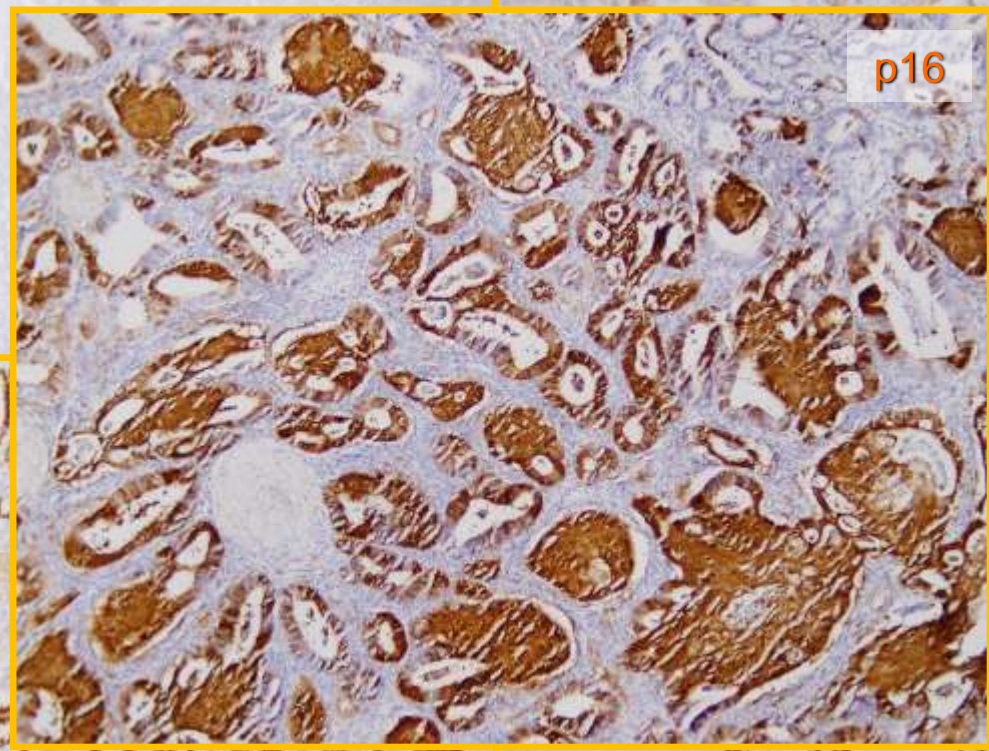
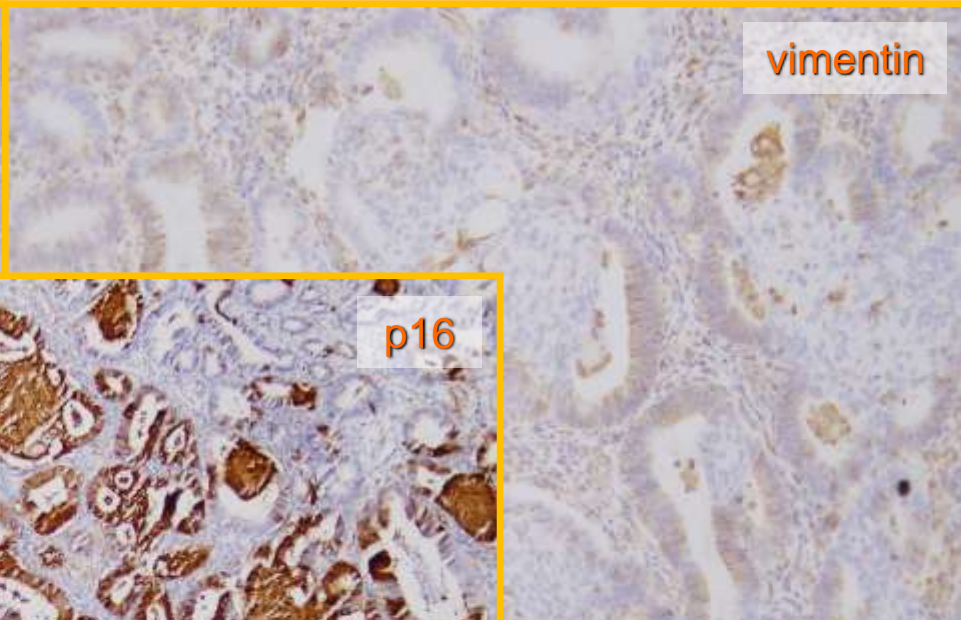
endometrium zhrubnuté s tvorbou polypov

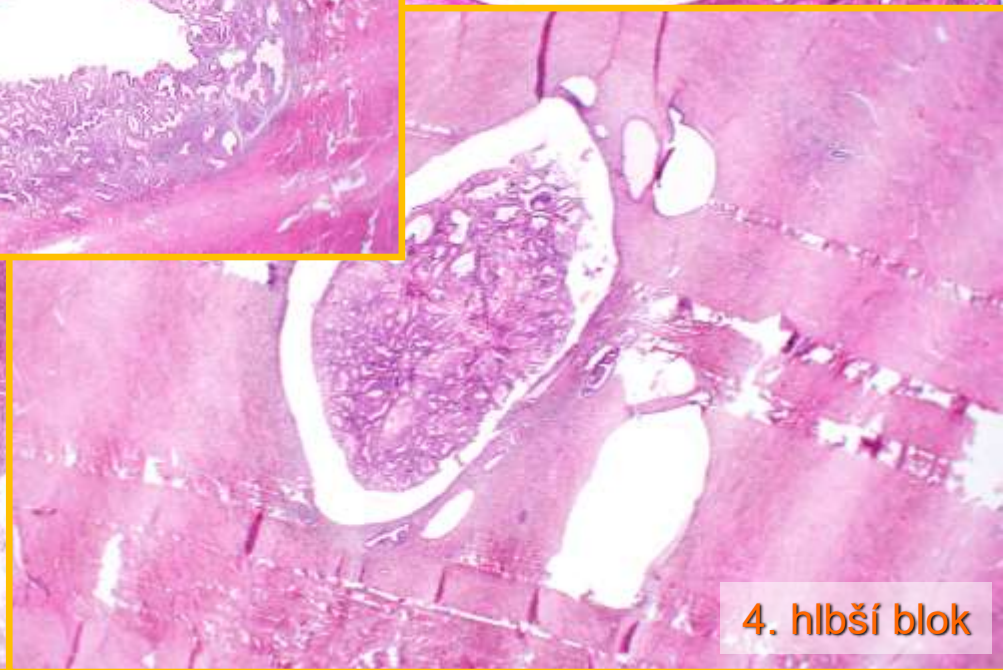
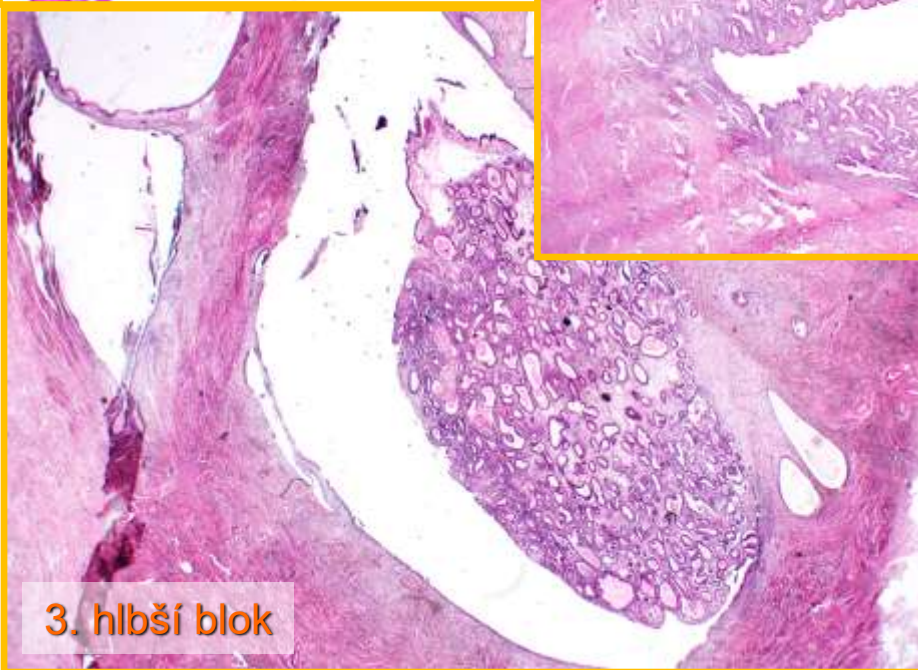
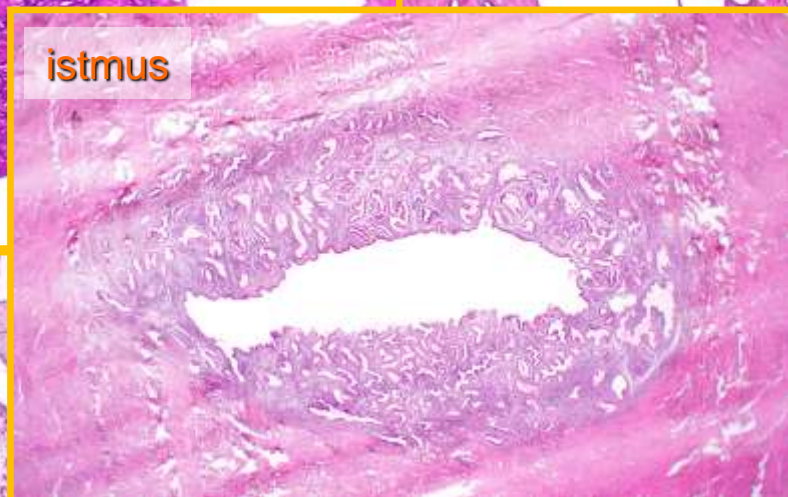
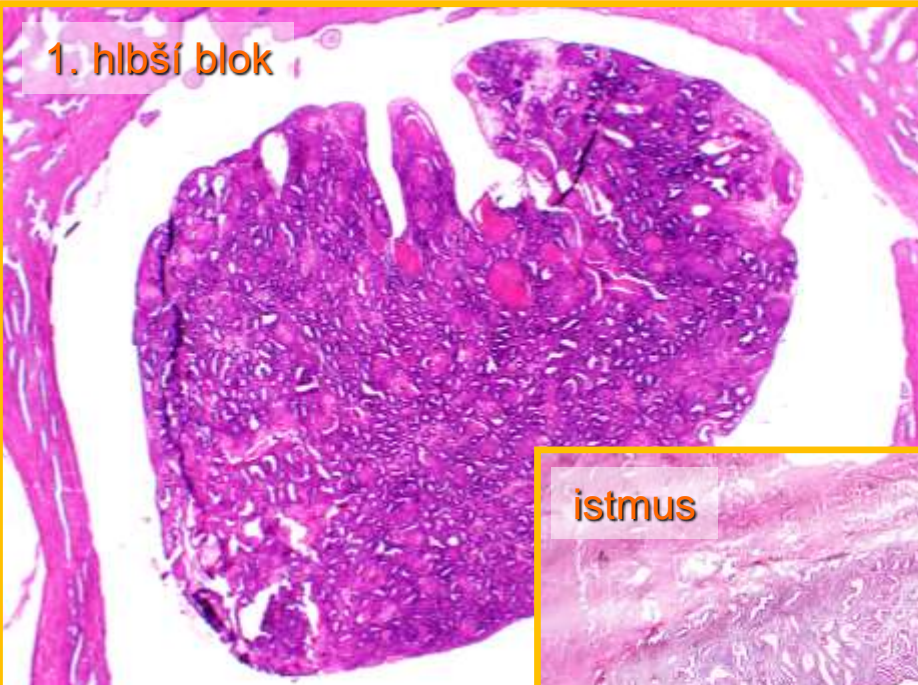


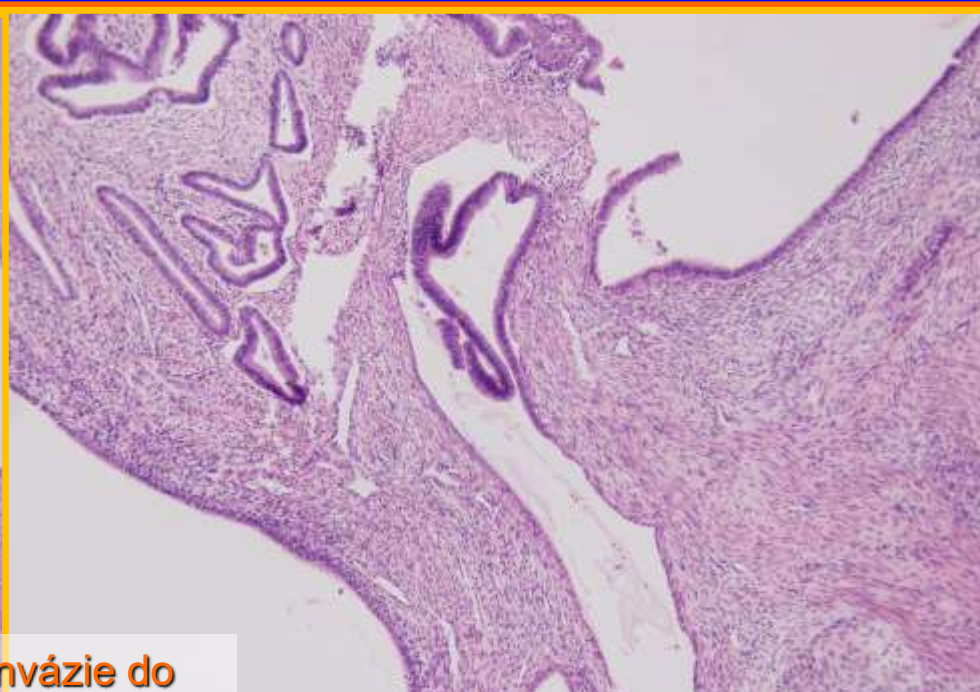




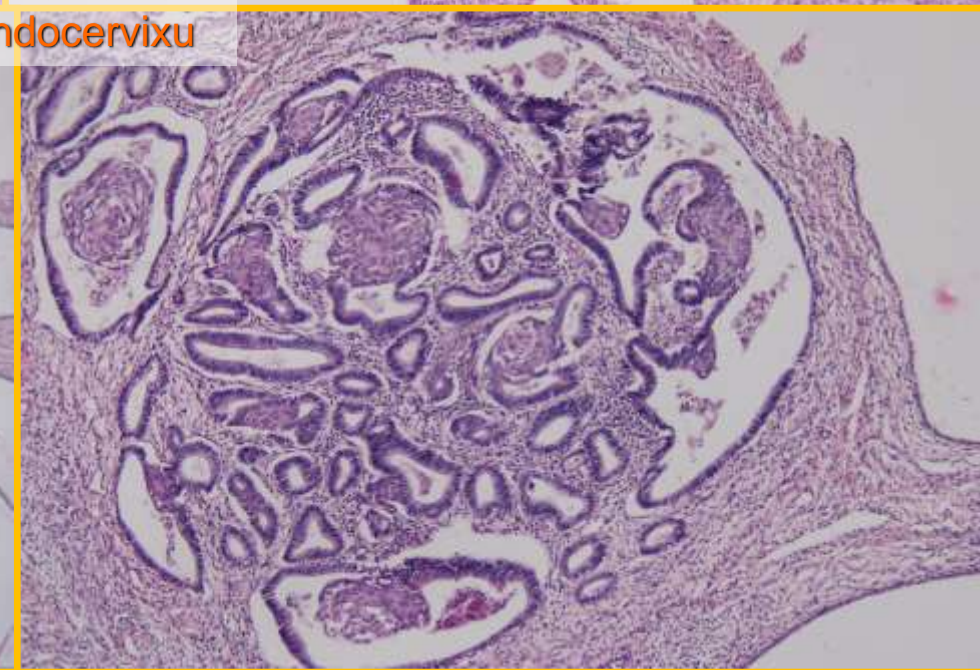
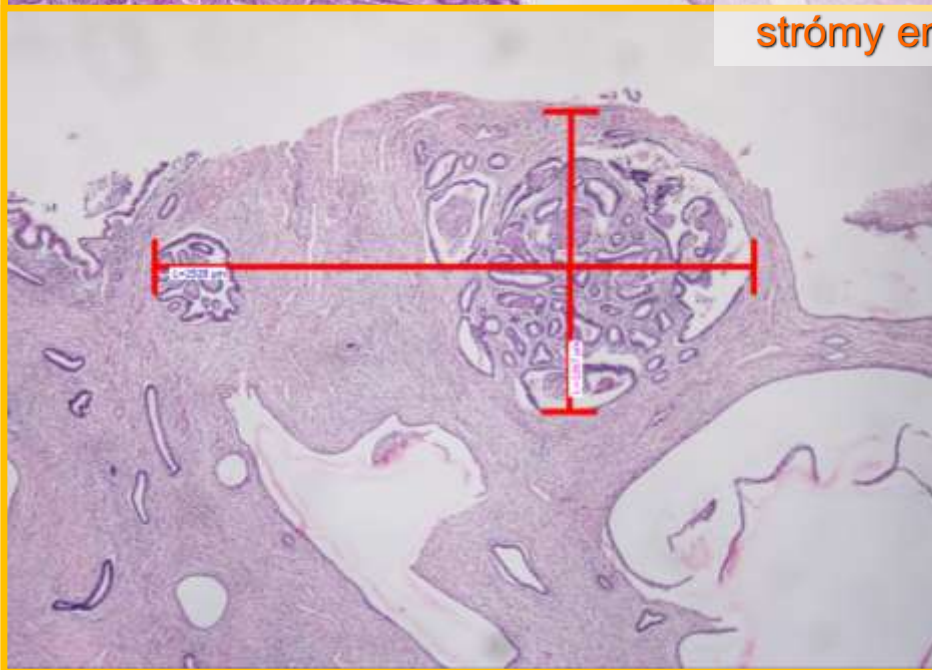
stopka polypu

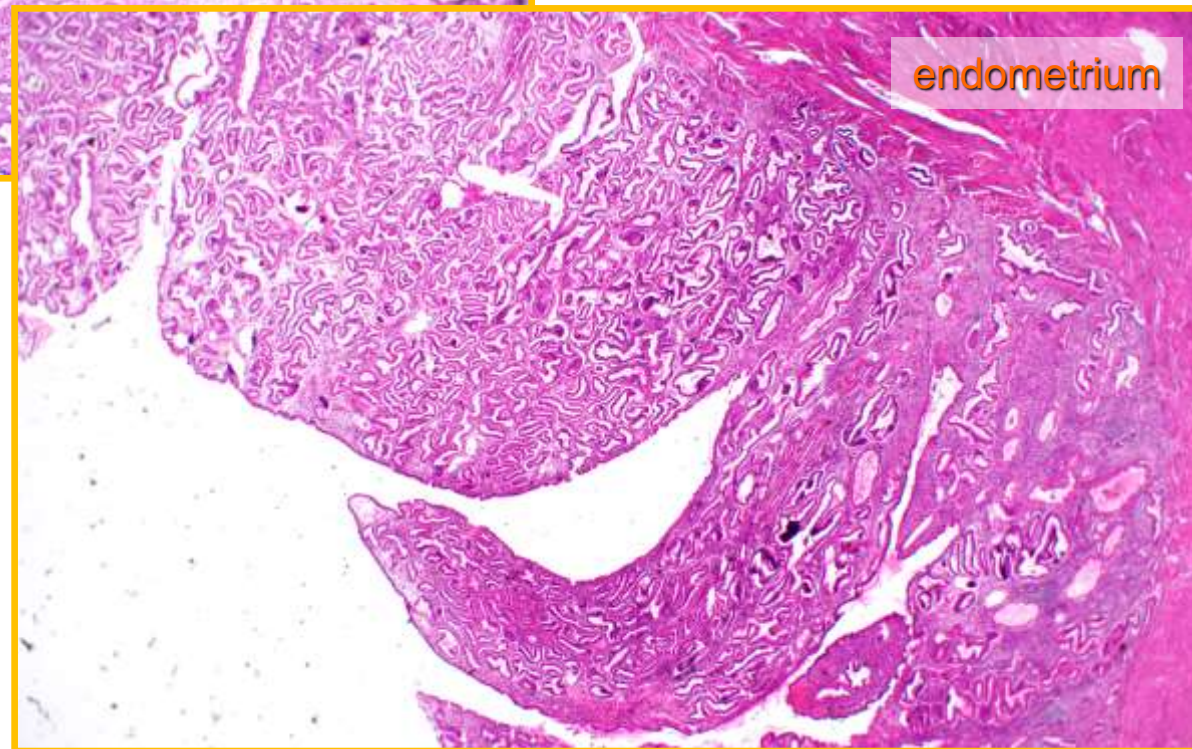
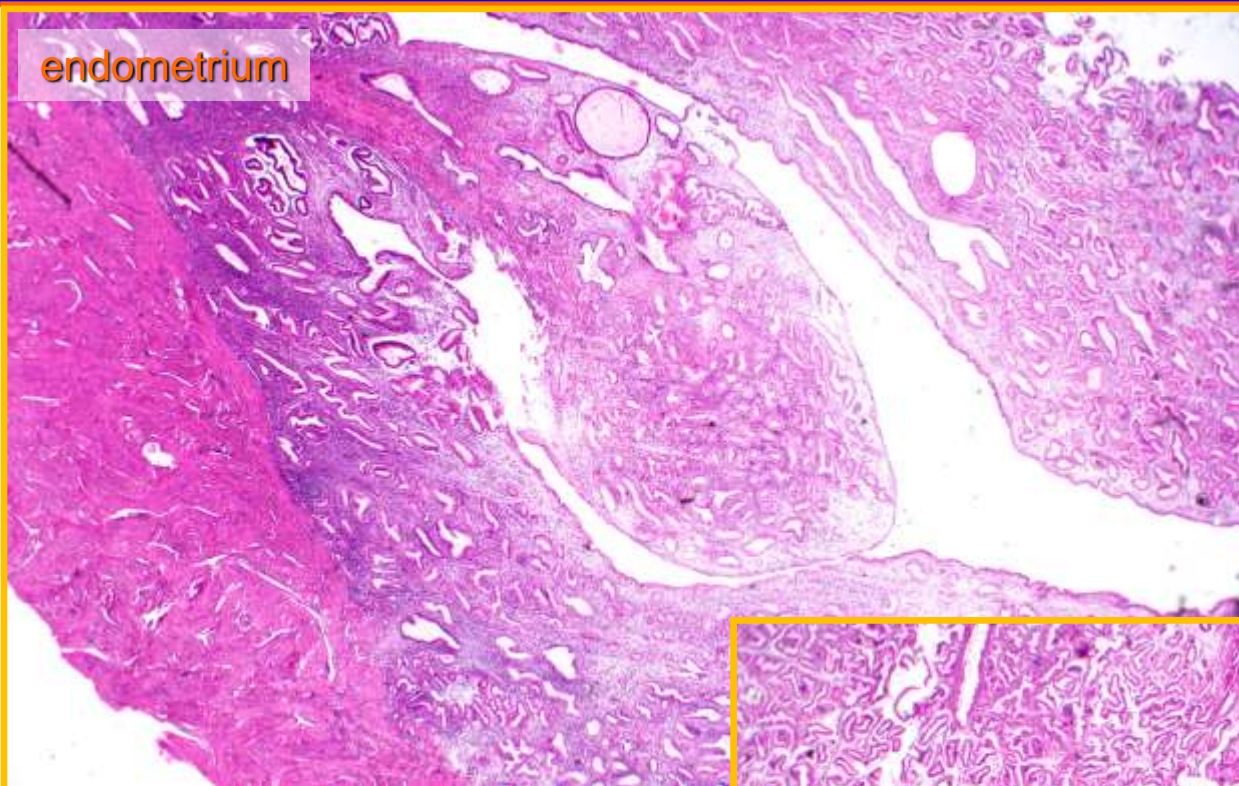


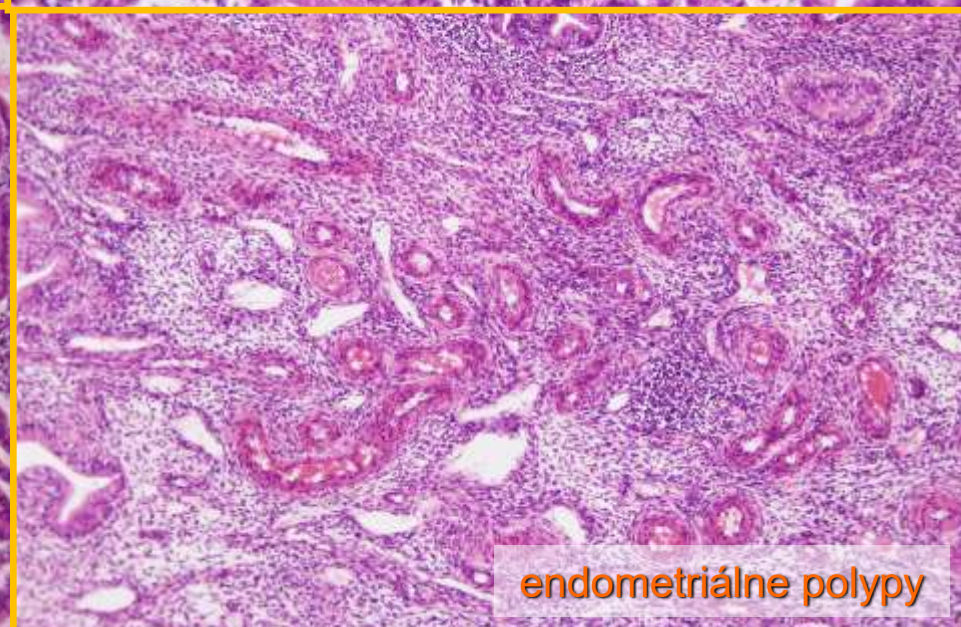
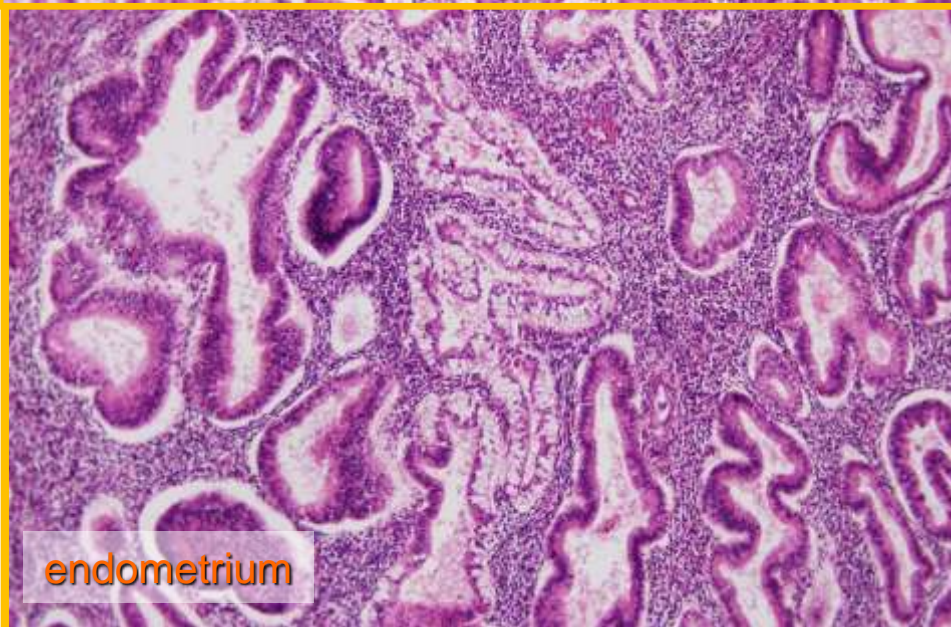
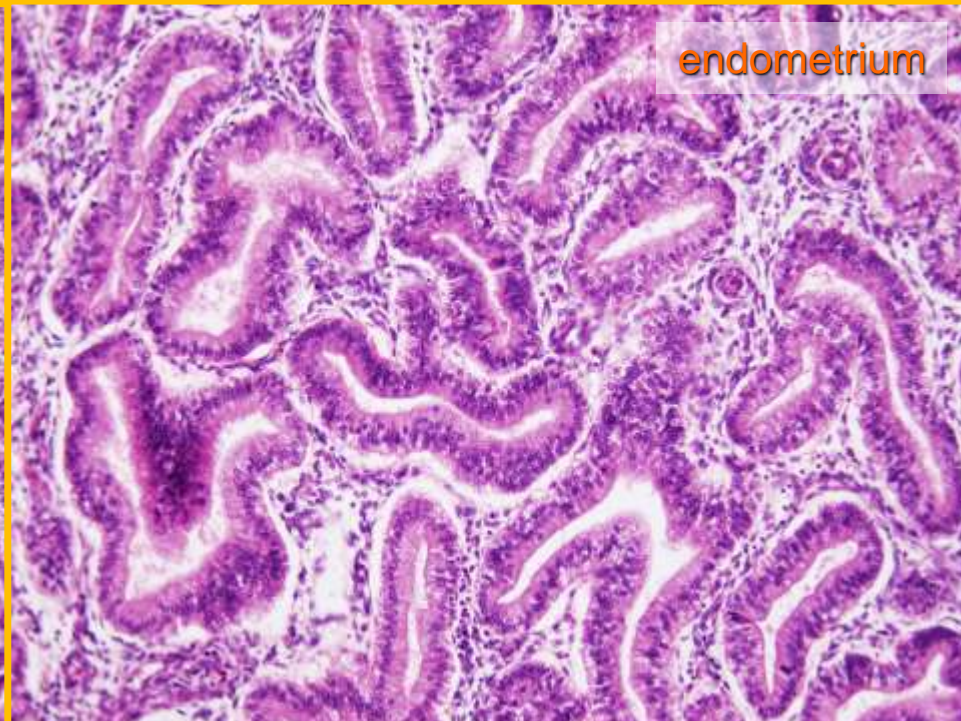
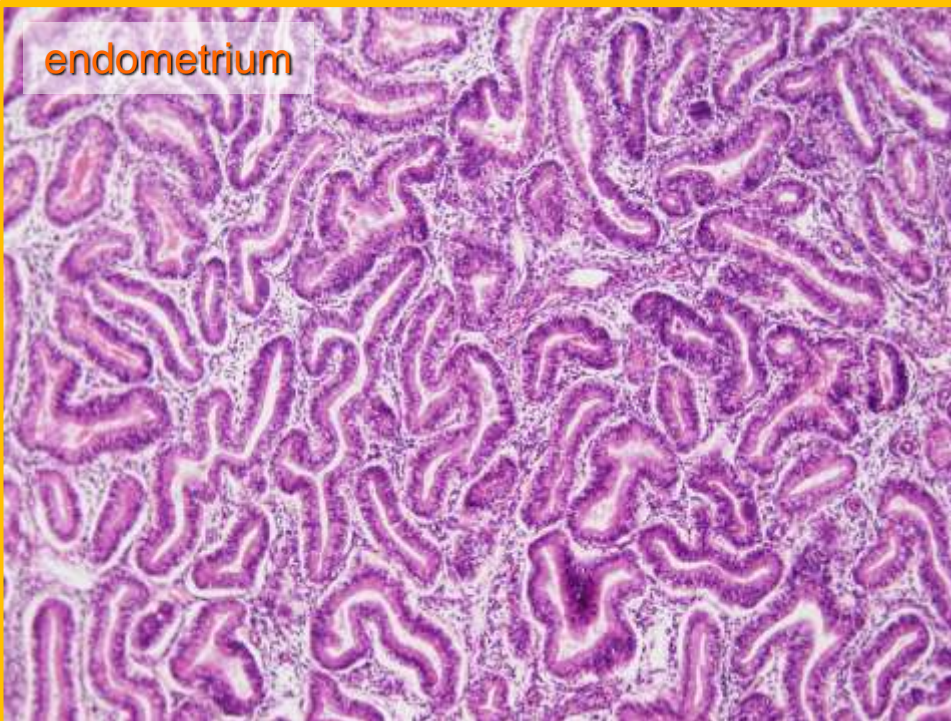


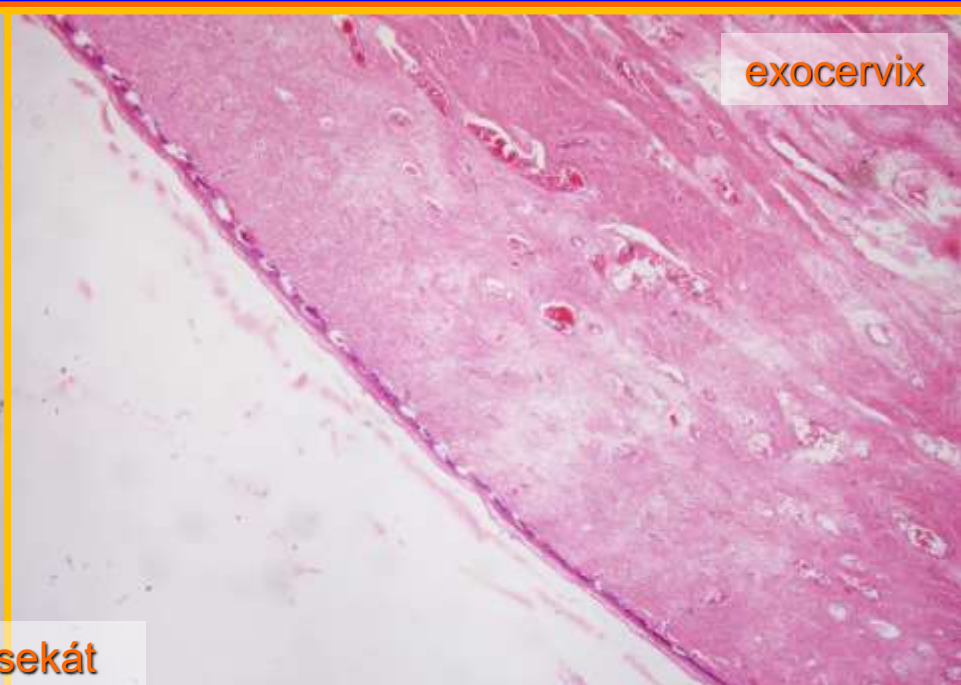
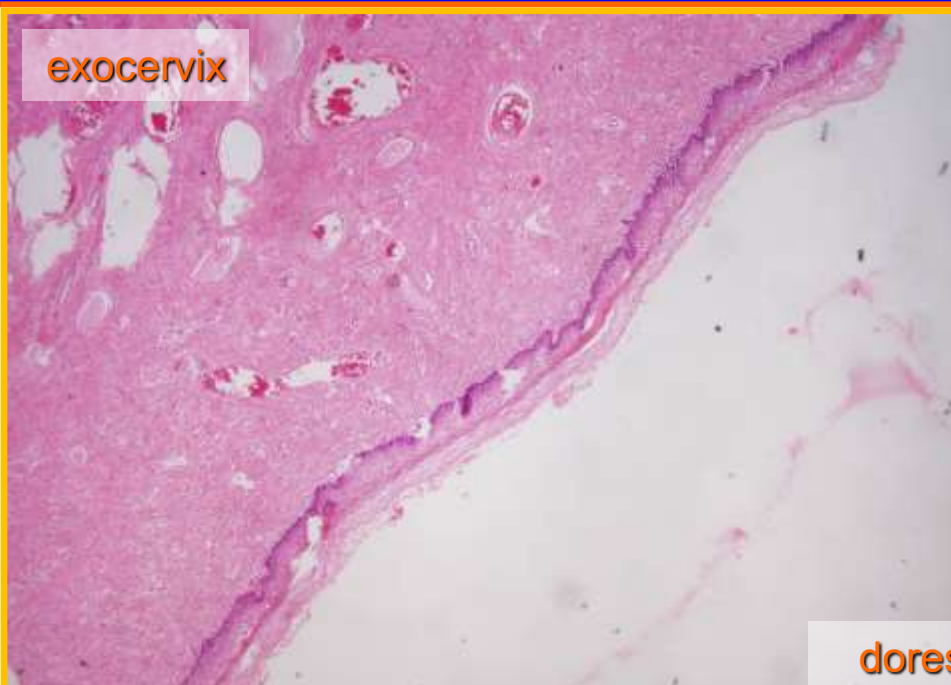


miesta invázie do
strómy endocervixu

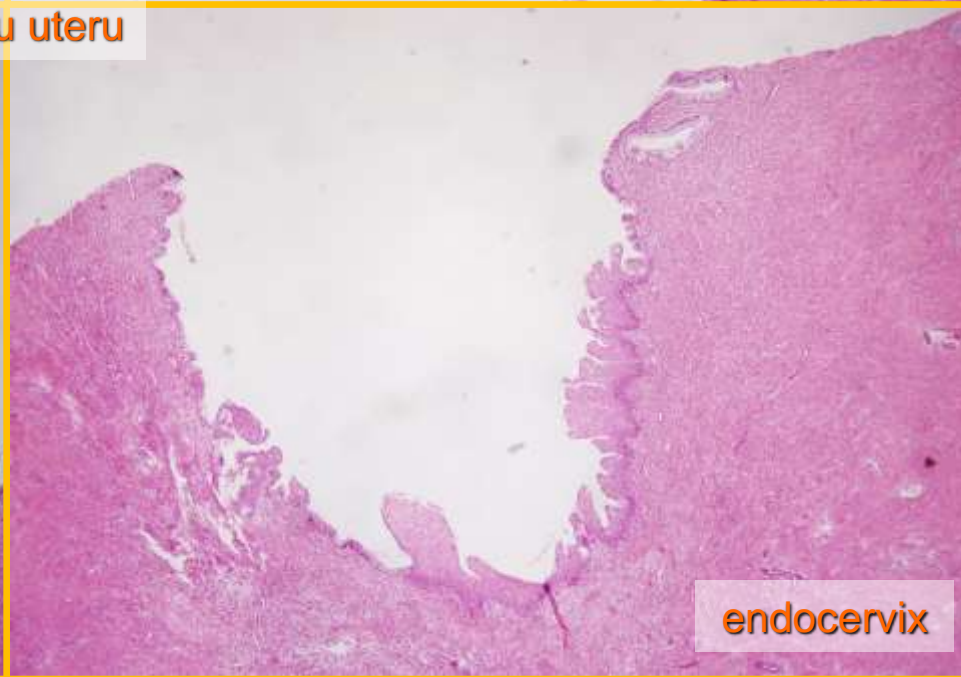








do resekátu cervixu uteri



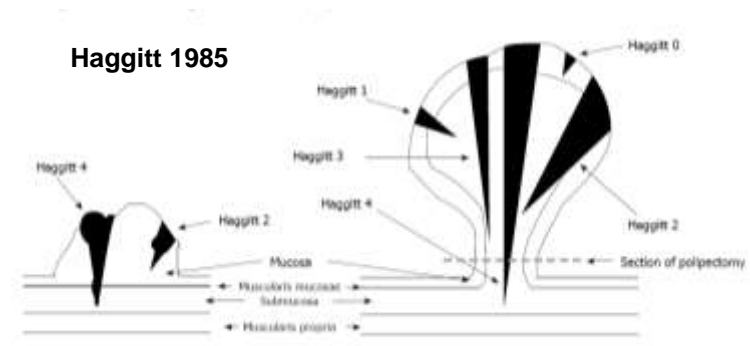
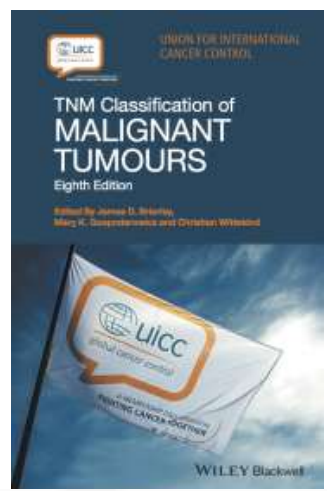
adenoskvamózny karcinóm krčka maternice (G1)
endometroidný typ so skvamóznou metapláziou
vznikajúci v teréne **endocervikálneho polypu?**

pTNM???

UICC?

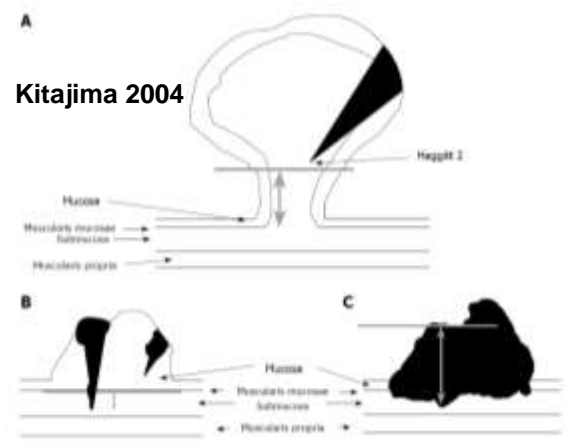
kolorektálne polypy?

iné???



TNM kategorie	FIGO stadia	
TX		primárny nádor nelze hodnotit
T0		bez známek primárního nádoru
Tis	0	karcinom in situ (preinvasivní karcinom)
T1	I	nádor omezený na hrdlo (šířeni na tělo děložni by nemělo být zohledněno)
T1a ^{2,3}	IA	invazivní karcinom diagnostikovaný pouze mikroskopicky. Stromální invaze s maximální hloubkou 5,0 mm, měřena od baze epitelu a horizontální rozsah 7,0 mm nebo méně ⁴⁾
T1a1	IA1	shodná stromální invaze 3,0 mm nebo méně do hloubky 7,0 mm nebo méně v horizontálním rozsahu
T1a2	IA2	shodná stromální invaze více než 3,0 mm, ne však více než 5,0 mm s horizontálním rozsahem 7,0 mm nebo méně
		¹⁾ FIGO již dále nezahrnuje stadium 0 (Tis).
		²⁾ Hloubka invaze by měla být měřena od baze epitelu (povrchového či žláznového), ze kterého vznikla. Hloubka invaze se definuje jako vzdálenost nádoru od epitelostromální junctce přilehlé, nepovrchověji uložené epitelální papily, k nehlubšímu bodu invaze nádoru. Postižení vazebního nebo lymfatického vaskulárního prostoru klasifikaci neovlivňuje.
T1b	IB	klinicky zřetelná léze omezená na hrdlo nebo mikroskopická léze větší než T1a2/IA2
T1b1	IB1	klinicky zřetelná léze 4,0 cm nebo méně v největším rozměru
T1b2	IB2	klinicky zřetelná léze větší než 4,0 cm v největším rozměru

Kitajima 2004



FIGO COMMITTEE REPORT

WILEY | GYNECOLOGY
OBSTETRICS | FIGORevised FIGO staging for carcinoma of the cervix uteri[✉]Neerja Bhatla^{1,*} | Jonathan S. Berek² | Mauricio Cuello Fredes³ | Lynette A. Denny⁴ |
Seija Grenman⁵ | Kanishka Karunaratne⁶ | Sean T. Kehoe⁷ | Ikuo Konishi⁸ |
Alexander B. Olawaiye⁹ | Jaime Prat¹⁰ | Rengaswamy Sankaranarayanan^{11,12}

FIGO Consensus Report

WILEY | 287

Box 1 FIGO staging of carcinoma of the cervix uteri (2018).

Stage I:

The carcinoma is strictly confined to the cervix uteri (extension to the corpus should be disregarded):

- **IA** Invasive carcinoma that can be diagnosed only by microscopy, with maximum depth of invasion ≤ 5 mm[†]
 - **IA1** Measured stromal invasion ≤ 3 mm in depth
 - **IA2** Measured stromal invasion ≥ 3 mm and < 5 mm in depth
- **IB** Invasive carcinoma with measured deepest invasion ≥ 5 mm (greater than stage IA), lesion limited to the cervix uteri[‡]
 - **IB1** Invasive carcinoma ≤ 5 mm depth of stromal invasion and < 2 cm in greatest dimension
 - **IB2** Invasive carcinoma ≥ 2 cm and ≤ 4 cm in greatest dimension
 - **IB3** Invasive carcinoma ≥ 4 cm in greatest dimension

Stage II:

The carcinoma invades beyond the uterus, but has not extended onto the lower third of the vagina or to the pelvic wall

- **IIA** Involvement limited to the upper two-thirds of the vagina without parametrial involvement
 - **IIA1** Invasive carcinoma ≤ 4 cm in greatest dimension
 - **IIA2** Invasive carcinoma ≥ 4 cm in greatest dimension
- **IIB** With parametrial involvement but not up to the pelvic wall

Stage III:

The carcinoma involves the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or non-functioning kidney and/or involves pelvic and/or paraaortic lymph nodes[‡]

- **IIIA** Carcinoma involves the lower third of the vagina, with no extension to the pelvic wall
- **IIIB** Extension to the pelvic wall and/or hydronephrosis or non-functioning kidney (unless known to be due to another cause)
- **IIIC** Involvement of pelvic and/or paraaortic lymph nodes, irrespective of tumor size and extent (with r and p notations)[‡]
 - **IIIC1** Pelvic lymph node metastasis only
 - **IIIC2** Paraaortic lymph node metastasis

Stage IV:

The carcinoma has extended beyond the true pelvis or has involved (diagnosably proven) the mucosa of the bladder or rectum. A bulous edema, as such, does not permit a case to be allotted to stage IV

- **IVA** Spread of the growth to adjacent organs
- **IVB** Spread to distant organs

[†]Imaging and pathology can be used, when available, to supplement clinical findings with respect to tumor size and extent, in all stages.[‡]The involvement of vascular/lymphatic spaces does not change the staging. The lateral extent of the lesion is no longer considered.[‡]Adding notation of r (imaging) and p (pathology) to indicate the findings that are used to allocate the case to stage IIIC. For example, if imaging indicates pelvic lymph node metastasis, the stage allocation would be stage IIICr and, if confirmed by pathological findings, it would be Stage IIIC1p. The type of imaging modality or pathology technique used should always be documented. When in doubt, the lower staging should be assigned.

The New (Version 9) American Joint Committee on Cancer Tumor, Node, Metastasis Staging for Cervical Cancer

Alexander B. Olawaiye, MD[✉], Thomas P. Baker, MD², M. Kay Washington, MD, PhD³, David G. Mutch, MD⁴¹Department of Obstetrics, Gynecology, and Reproductive Sciences, University of Pittsburgh School of Medicine, Magee-Women's Hospital of the University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania; ²The Joint Pathology Center, Defense Health Agency National Capital Regional Medical Directorate, Silver Spring, Maryland; ³Department of Pathology, Vanderbilt University Medical Center, Nashville, Tennessee; ⁴Department of Obstetrics and Gynecology, Washington University School of Medicine, St Louis, Missouri

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DISCLOSURE: The authors report no conflicts of interest.

Thomas P. Baker's contributions to this article are his views and do not reflect the official policy of the Departments of the Army, Navy, or Air Force; the Department of Defense; or the US government.

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Abstract: The American Joint Committee on Cancer (AJCC) tumor, node, metastasis (TNM) staging for all cancer sites has been periodically updated as a published manual for many years. The last update, the eighth edition AJCC Cancer Staging Manual went into use on January 1, 2016. The AJCC has since restructured and updated its processes, and all AJCC staging-related data are now housed on its new application programming interface. Consequently, the next AJCC TNM staging update, AJCC version 9 TNM staging, will be published electronically and will be released chapter by chapter. The first chapter of version 9 AJCC TNM staging is the updated cervical cancer staging, which is now published. This article highlights the changes to the AJCC TNM cervical cancer staging; these changes align with the International Federation of Gynecology and Obstetrics staging. The most important of the changes are: 1) the incorporation of imaging and surgical findings; 2) the elimination of lateral spread from T1a; 3) the addition of a subcategory to T1b (T1b3); and 4) histopathology is updated to reflect human papillomavirus-associated and human papillomavirus-independent carcinomas. *CA Cancer J Clin* 2021;71:287–298. © 2021 The Authors. *CA: A Cancer Journal for Clinicians* published by Wiley Periodicals LLC on behalf of American Cancer Society. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

Keywords: American Joint Committee on Cancer (AJCC), version 9, staging, cervix



Cervix Uteri TNM 2021

Cervix Uteri
(ICD-O C53)

The definitions of the T, N and M categories correspond to the Fédération Internationale de Gynécologie et d'Obstétrique (FIGO) stages. The FIGO classification has been revised (Bhatia 1 et al. 2019). Both this and the AJCC v9 correspond to the 2018 FIGO Classification. FIGO system is included for comparison.

Rules for Classification

The classification applies only to carcinomas. There should be histological confirmation of the disease.

The following are the procedures for assessing T, N, and M categories.

T categories: Clinical examination and imaging*

N categories: Clinical examination and imaging

M categories: Clinical examination and imaging

Note:

Imaging and pathology can be used, when available, to supplement clinical findings with respect to tumor size and extent, in all stages.

Anatomical Subsites

1. Endocervix (C53.0)
2. Exocervix (C53.1)

Regional Lymph Nodes

The regional lymph nodes are the paracervical, parametrial, hypogastric (internal iliac, obturator), common and external iliac, presacral, lateral sacral nodes and para-aortic nodes.

TNM Clinical Classification

T — Primary Tumour

TNM Categories	FIGO Stages	
Tx		Primary tumour cannot be assessed
T0		No evidence of primary tumour
Tc	*	Carcinoma in situ (pre-invasive carcinoma)
T1	I	Tumour confined to the cervix (extension to corpus should be disregarded) ¹
T1a ²	IA	Invasive carcinoma diagnosed only by microscopy. Stromal invasion with a maximal depth of 5.0 mm ³
T1a1	IA1	Measured depth of stromal invasion 3.0 mm or less in depth
T1a2	IA2	Measured depth of stromal invasion more than 3.0 mm and not more than 5.0 mm
		Note: The depth of invasion should be taken from the base of the epithelium, either surface or glandular, from which it originates. The depth of invasion is defined as the measurement of the tumour from the epithelium-stromal junction of the adjacent most superficial papillae to the deepest point of invasion.
T1b	IB	Lesion confined to the cervix with depth of invasion greater than 5mm
T1b1	IB1	Lesion 2.0 cm or less in greatest dimension
T1b2	IB2	Lesion more than 2.0 cm in greatest dimension but no more than 4cm in greatest dimension
T1b3	IB3	Lesion more than 4cm in greatest diameter
T2	II	Tumour invades beyond uterus but not to the pelvic wall or to the lower third of vagina
T2a	IIA	Tumour without parametrial invasion
T2a1	IIA1	Lesion 4.0 cm or less in greatest dimension
T2a2	IIA2	Lesion more than 4.0 cm in greatest dimension
T2b	IIB	Tumour with parametrial invasion
T3	III	Tumour involves lower third of vagina, or extends to pelvic wall, or causes hydronephrosis or non-functioning kidney
T3a	IIIA	Tumour involves lower third of vagina
T3b	IIIB	Tumour extends to pelvic wall, or causes hydronephrosis or nonfunctioning kidney
T4	IVA	Tumour invades mucosa of the bladder or rectum, or extends beyond true pelvis ⁴

Notes:

* In FIGO equivalent, FIGO does not include Stage 0 (T0).

¹ Extension to corpus uteri should be disregarded.

² Vascular space involvement, venous or lymphatic, does not affect classification.

³ Diffuse edema is not sufficient to classify a tumour as T4.

N – Regional lymph nodes

Nx	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastases
N1 ¹	Regional lymph node metastases to pelvic lymph nodes only
N2 ^{1,2}	Regional lymph node metastases to para-aortic lymph nodes, with or without positive pelvic lymph nodes

Notes:

¹ The suffix (m) is added if the lymph node metastases is > 0.2mm but ≤ 2mm

² The suffix (sn) is added if the metastases is identified by sentinel node biopsy (see page 7 TNM Classification of Malignant Tumours, 8th Edition)

FIGO and AJCC add the suffix a if the node metastases >2mm in size.

M – Distant Metastasis

M0	No distant metastasis
M1	Distant metastases (includes inguinal lymph nodes and intraperitoneal disease); it excludes metastases to vagina, pelvic serosa, and adnexa

pTNM Pathological Classification

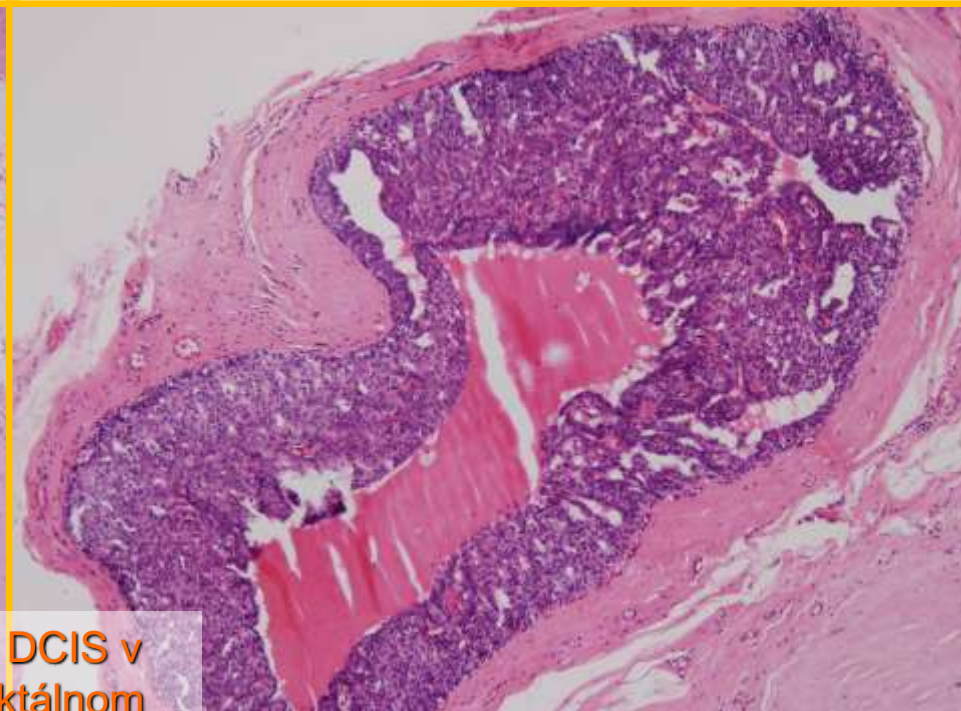
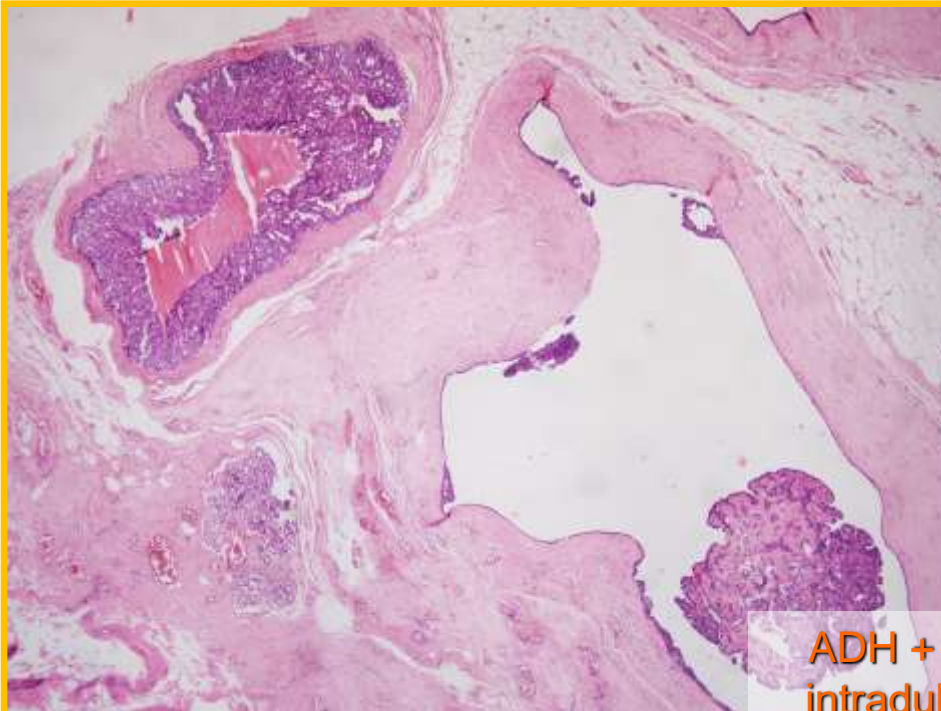
The pT and pN categories correspond to the T and N categories. For pM see page 8 TNM Classification of Malignant Tumours, 8th Edition.

pN0: Histological examination of a pelvic lymphadenectomy specimen will ordinarily include 10 or more lymph nodes. If the lymph nodes are negative, but the number ordinarily examined is not met, classify as pN0.

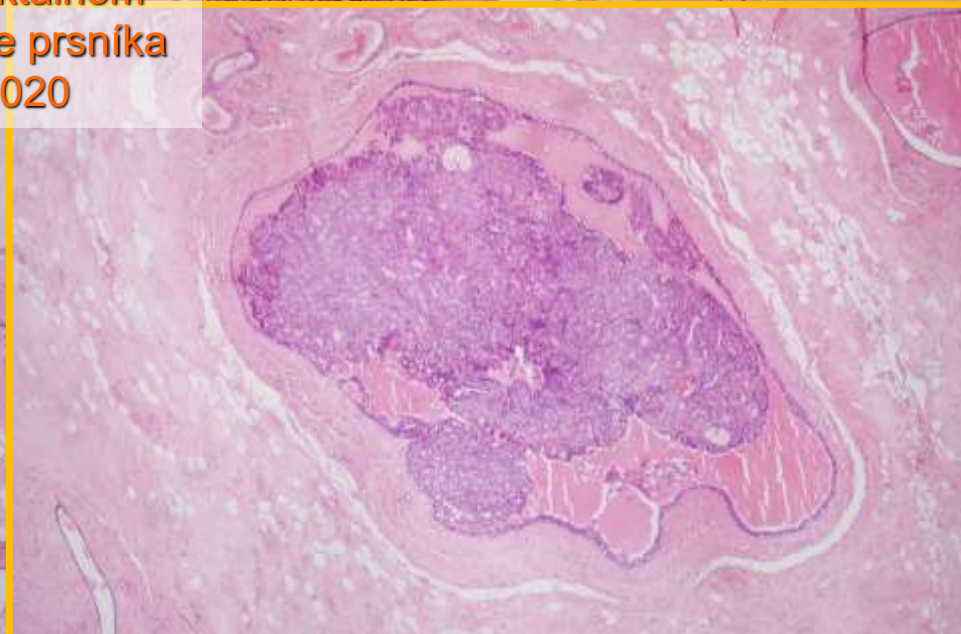
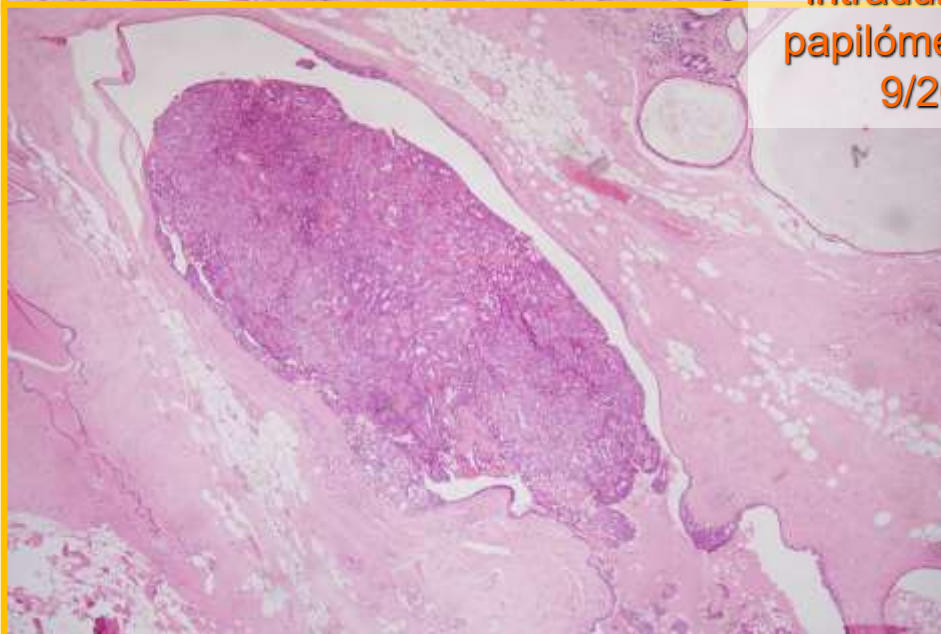
	Stage		
Stage 0	T0	N0	M0
Stage I	T1	N0	M0
Stage IA	T1a	N0	M0
Stage IA1	T1a1	N0	M0
Stage IA2	T1a2	N0	M0
Stage IB	T1b	N0	M0
Stage IB1	T1b1	N0	M0
Stage IB2	T1b2	N0	M0
Stage IB3	T1b3	N0	M0
Stage II	T2	N0	M0
Stage IIA	T2a	N0	M0
Stage IIA1	T2a1	N0	M0
Stage IIA2	T2a2	N0	M0
Stage IIB	T2b	N0	M0
Stage III	T3	N0	M0
Stage IIIA	T3a	N0	M0
Stage IIIB	T3b	N0	M0
Stage IVC1	Tx, T0, T1a, T1, T2, T3	N1	M0
Stage IVC2	Tx, T0, T1a, T1, T2, T3	N2	M0
Stage IVA	T4	Any N	M0
Stage IVB	Any T	Any N	M1

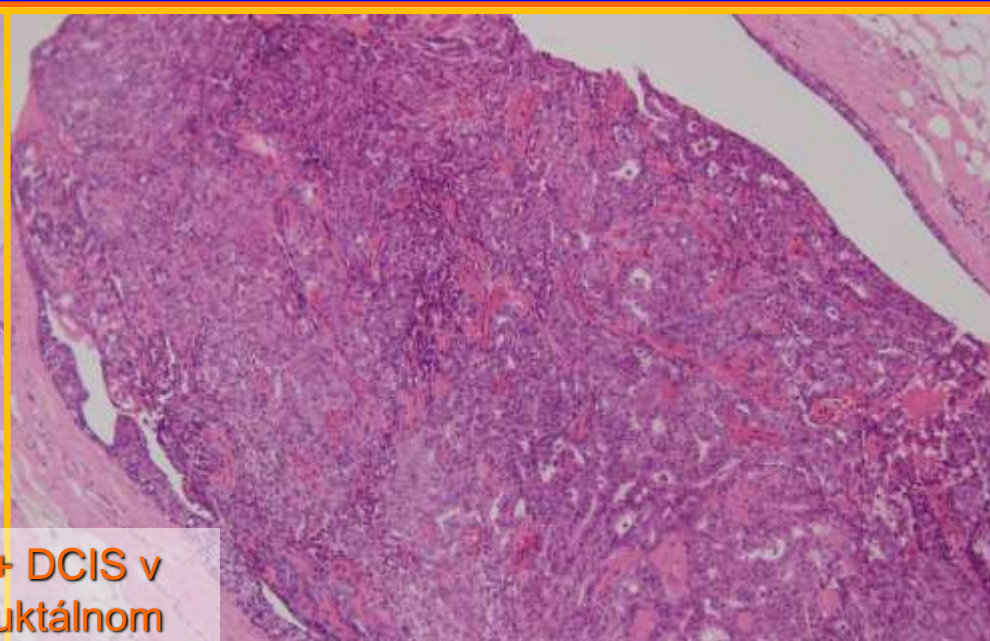
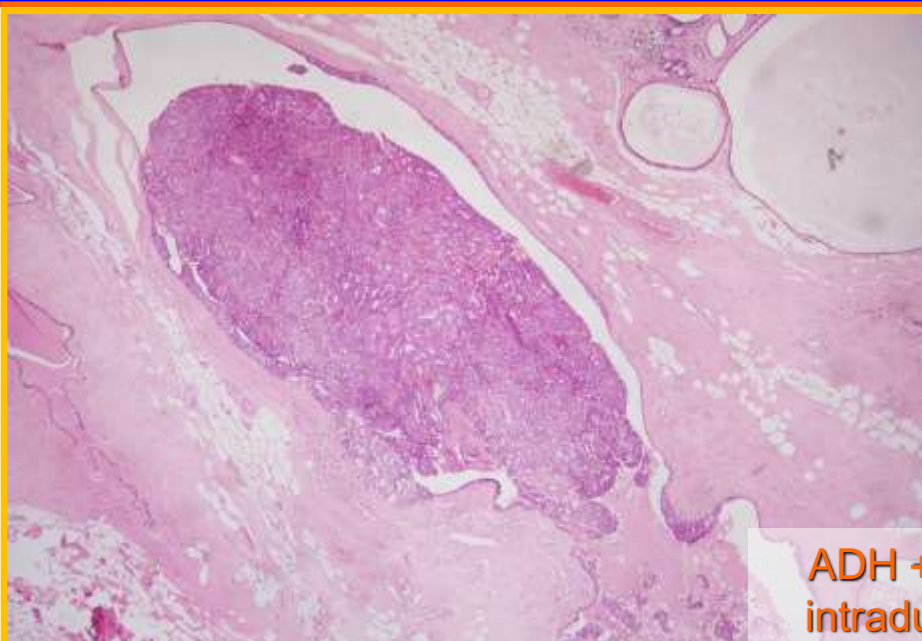
References

Bhatia, N., Benik, J.S., Cuello Fresco, M., Denny, L.A., Griesman, S., Karsanovskiy, K., Kehoe, S.T., Kurhth, I., Okawaga, A.S., Prat, J. and Sankaranarayanan, R. (2019). Revised FIGO staging for carcinoma of the cervix uteri. *Int J Gynecol Obstet*, 145: 128-136. doi: 10.1016/j.ijgo.2019.07.019. Also the corresponding Int J Gynecol Obstet, 147: 279-280. doi:10.1016/j.ijgo.2019.12.001

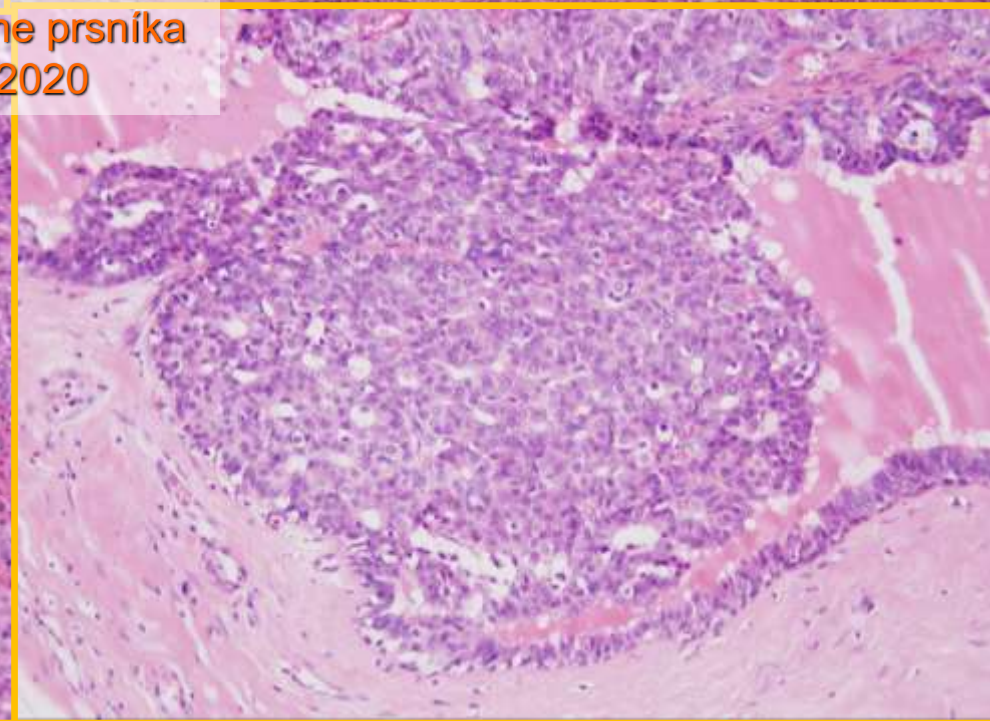
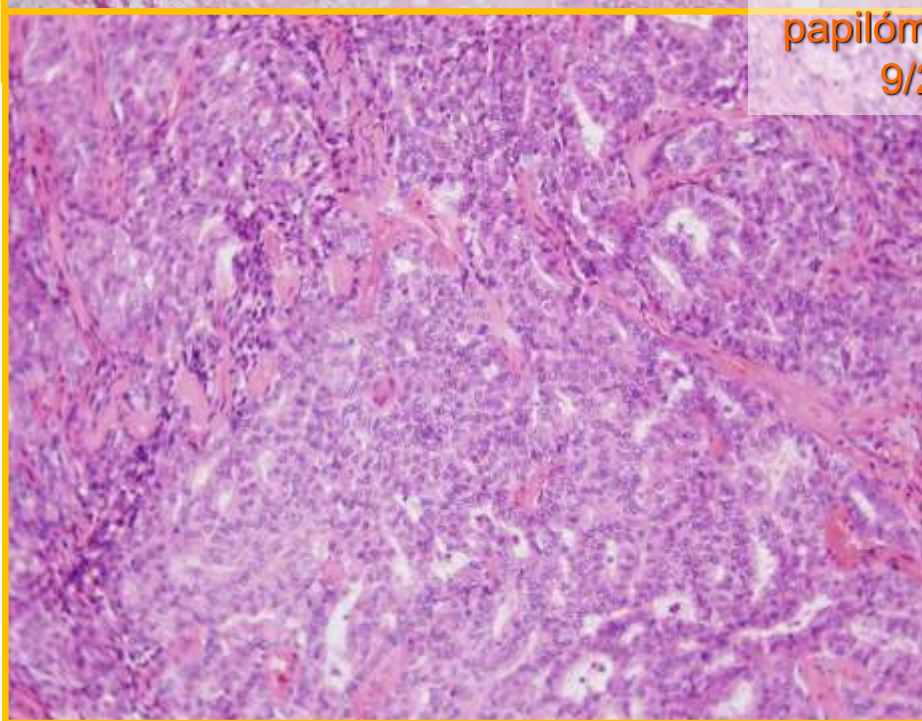


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9/2020

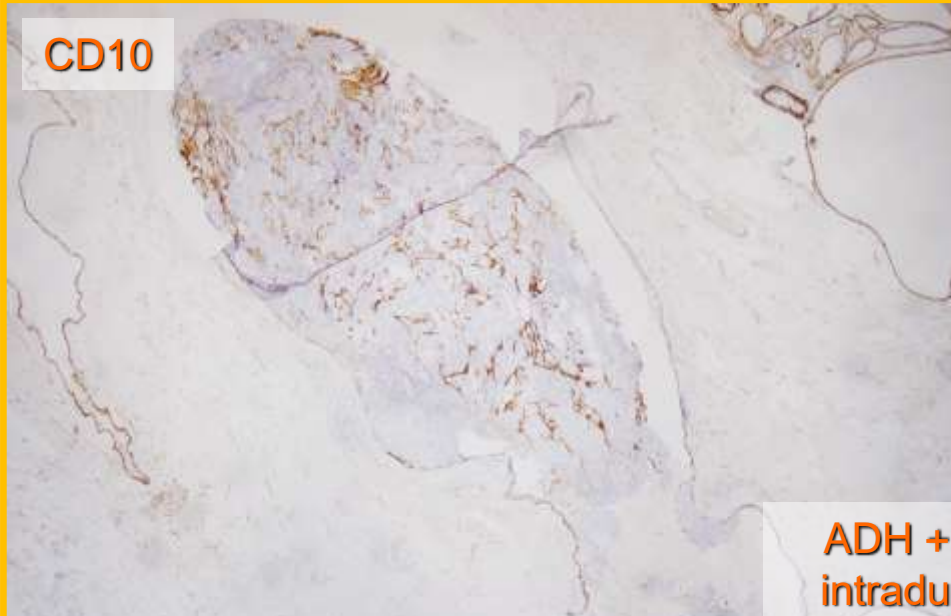




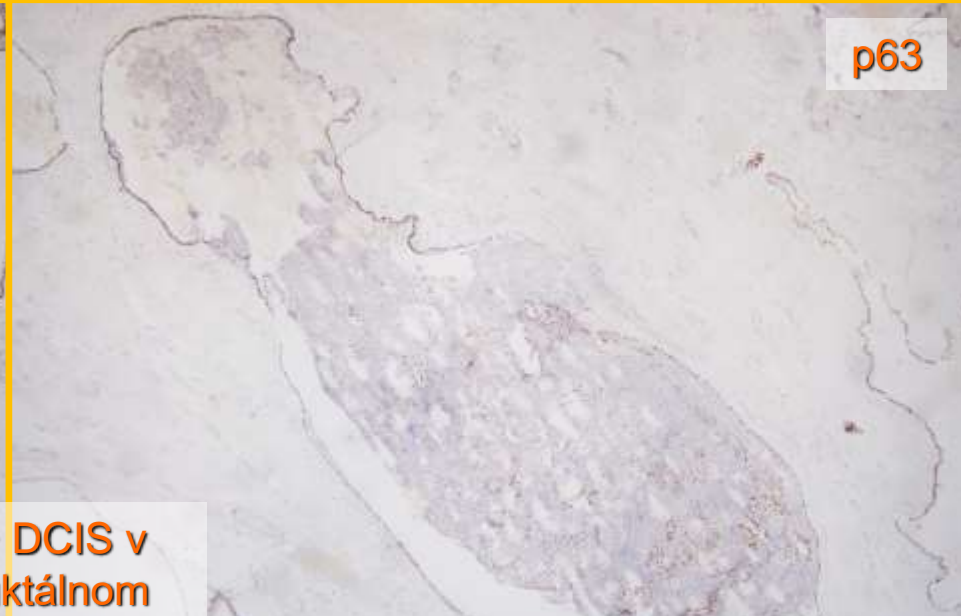
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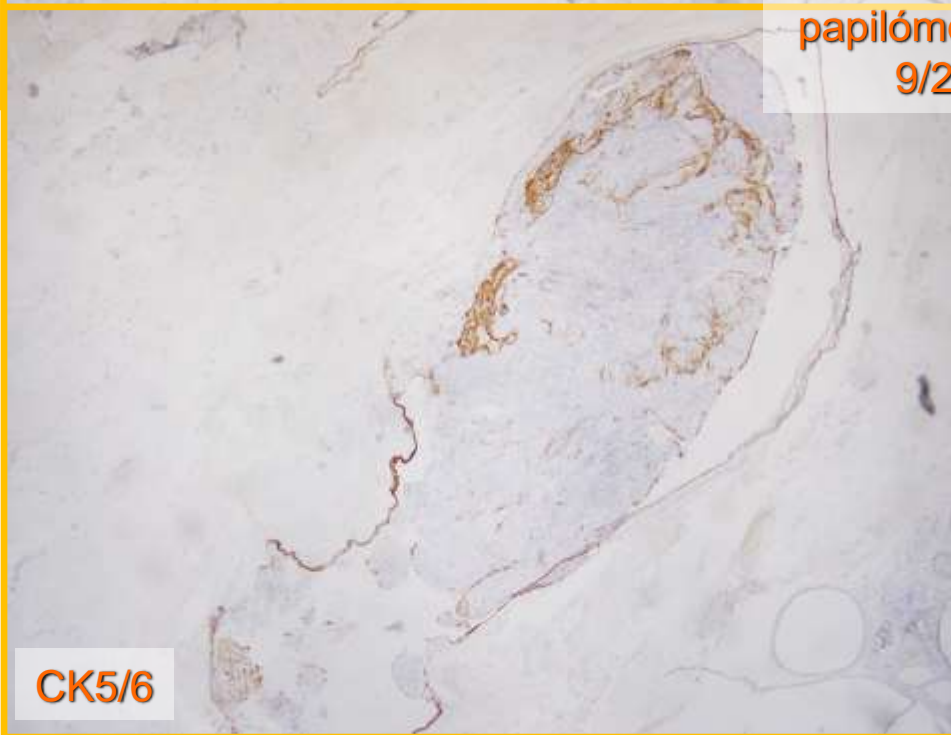


p63

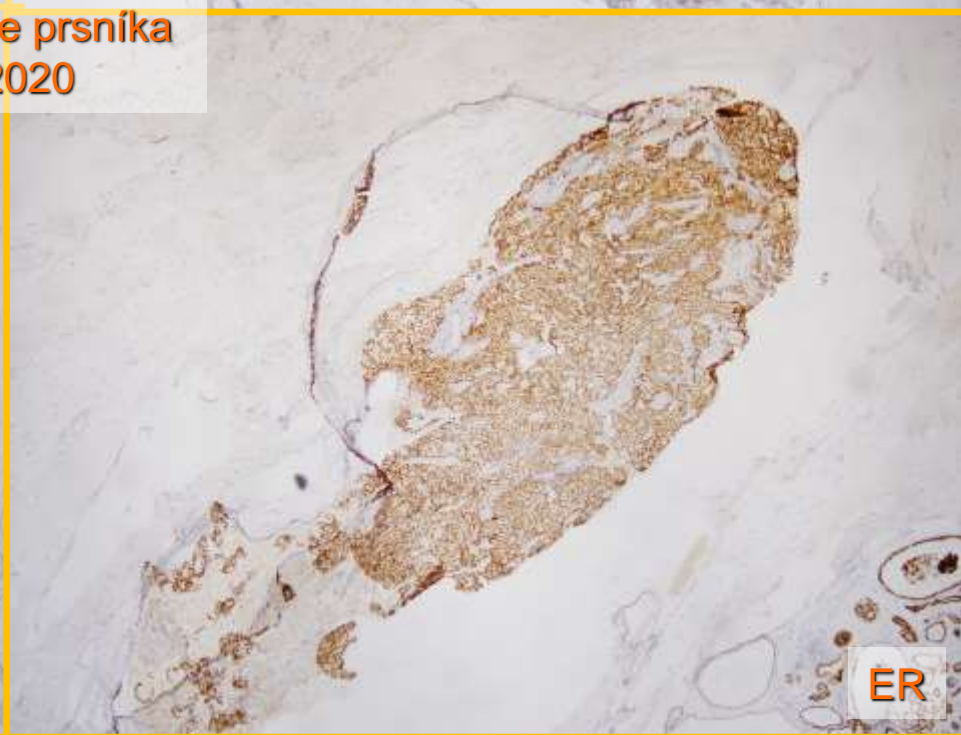


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papilóme prsníka
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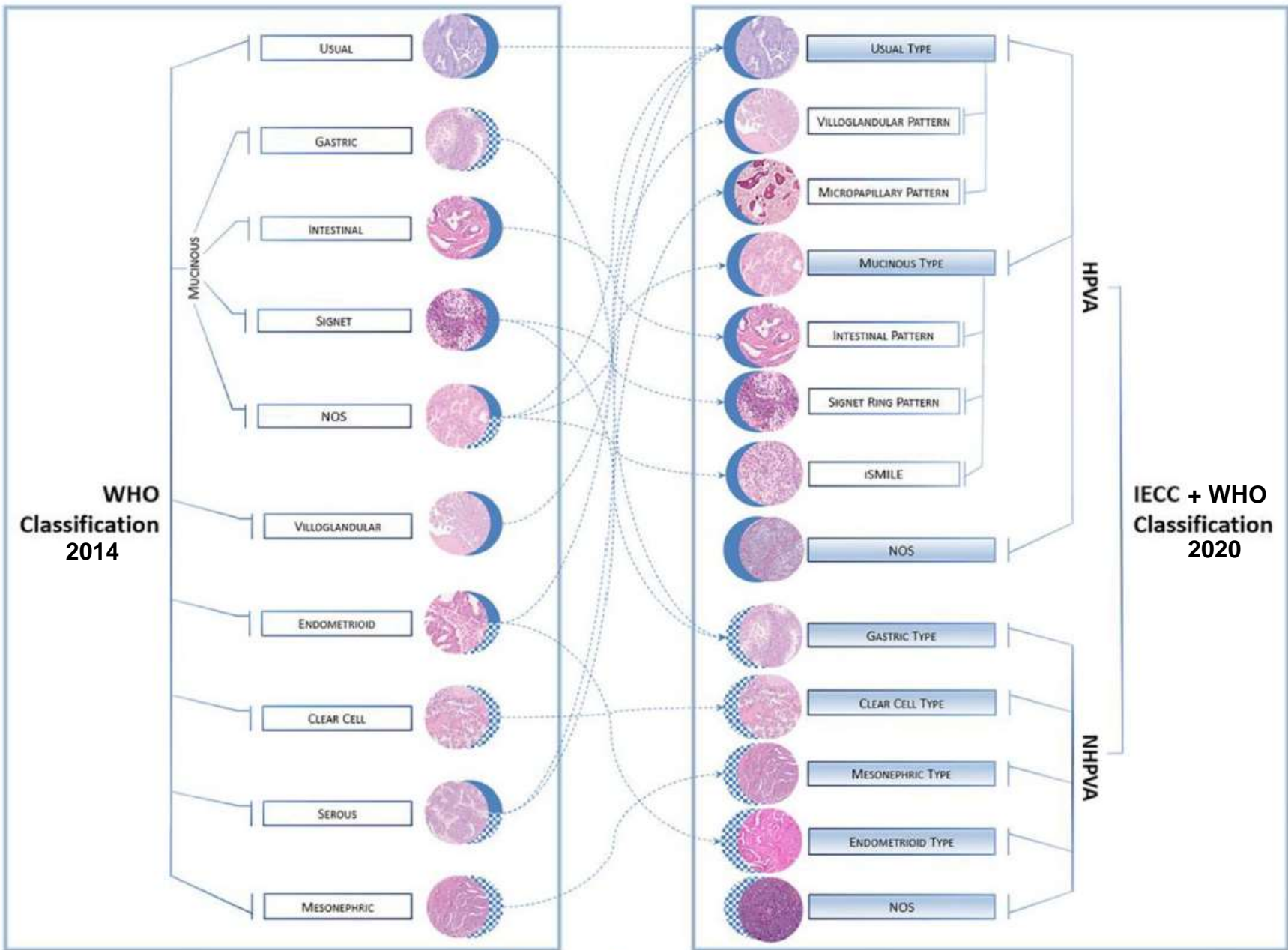
CK5/6



ER



- ❖ WHO klasifikácia adenokarcinómov cervixu maternice
- ❖ 4. edícia z 2013: adenokarcinóm in-situ
 - adenokarcinóm „usual type“
 - mucinózny (gastrický, intestinálny, „signet-ring“ typ)
 - viloglandulárny
 - endometroidný
 - „clear cell“
 - serózný
 - mezonefrický
 - adenokarcinóm zmiešaný s neuroendokrinným karcinómom
- ❖ 5. edícia z 2020: adenokarcinóm in-situ (NOS, HPV-asociovaný, HPV-indep.)
 - adenokarcinóm NOS
 - adenokarcinóm HPV-asociovaný
 - adenokarcinóm HPV-independentný
 - (NOS, gastrický, „clear cell“, mezonefrický)
 - endometroidný
 - karcinosarkóm
 - adenoskvamózny/mukoepidermoidný
 - adenoidný bazocelulárny



❖ endometroidný karcinóm krčka maternice:

- rôzna incidencia (4-50%) vzhľadom na morfológiu podobnú morfológiu s adenokarcinómom NOS
- relatívne pravidelné žľazy bez hlienotvorby, bazálne lokalizované, pseudostratifikované jadrá, bez ťažkých atypií, bez početných apikálnych mitóz a apoptotických jadier
(t.č. tzv. „confirmatory endometrioid features“ typické pre adenoCA NOS)
- vždy vylúčiť pôvod z endometria (endometriálne sú len fokálne p16+)
- imunohistochemicky: CEA+, p16 difúzne silno+, ER/PR-, vimentín-
- často skvamózna komponenta – relatívne blandného vzhľadu
 - situovaná v luminálnej časti žliaz

❖ **adenoskvamózny karcinóm krčka maternice (WHO 2020):**

- **zreteľná žľazová a skvamózna diferenciácia**
- **žľazová komponenta - zvyčajne adenokarcinóm NOS**
 - **môže byť aj mucinózny, resp. endometroidný Ca**
 - **často extra aj intracellulárna hlienotvorba**
 - **apikálne mitózy a apoptotické jadrá**
- **skvamózna komponenta – pleomorfná, zreteľne malígneho vzhľadu, infiltrujúca strómu**
- **imunohistochemicky: CEA+, p16+, vimentin-, ER-, PR-**

❖ **endocervikálne polypy - 2-5% žien**

- **neznáma etiológia (zápal?, infekcia?, poruchy cievneho zásobenia?,
extrogény?)**

- **2/3 sú asymptomatické**

- **fibrovaskulárna stróma s hrubostennými, dilatovanými cievami, zápalom a
žliazkami**

- **epitel je žľazový, skvamózny, resp. kombinovaný**

- ❖ adenokarcinómy vznikajúce v teréne endocervikálneho polypu
 - veľmi zriedkavé – invazívne malignity len v 0,1% polypov
 - prekursorové lézie/invazívne malignity v 2,73% polypov
 - častejšie u symptomatických polypov
 - častejšie u postmenopauzálnych žien (4,9%) ako premenopauzálnych (1,1%)
 - často asociované s patológiami endometria: hyperplázie, polypy, karcinómy (až 25% symptomatických postmenopauzálnych žien s polypmi cervixu má patológiu endometria)
 - treba vylúčiť možnosť šírenia nádoru z endometria či exocervixu
 - veľmi dobrá prognóza (takmer vždy benígny priebeh)

Take home message!

1. Čím viac vieme, tým sú veci zložitejšie a diagnóza diskutabilná
2. Aký je rozdiel medzi adenokarcinómom krčka maternice NOS (HPV+) a endometroidným adenokarcinómom krčka maternice (HPV-)???
3. Aktualizácia UICC TNM klasifikácie karcinómov krčka maternice

Take home message!

ĀNO, ZOSTAL SOM V KRČME
UŽ LEN SĀM. OSTATNĪ PIJŪ
DOMA, VOLAJŪ TO HOME OFFICE.



Miklāš
Svāpys