

JSC “Astana Medical University”

Obstetrics and gynecology department

Topic: “Methods of examination in gynecology”

Performed by: Sakhi S.K.

Checked by: Gabdilashimova Z.T.

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Content

- **Anamnesis**
 - the main aspects
 - the common cases
- **Gynecological examination**
 - examination of external genital organs
 - bimanual vaginal-abdominal examination
 - rectal and vaginal-rectal examination
- **Instrumental Research Methods**
- **Tissue biopsy and cytology**
- **Special examination methods**
 - laboratory diagnostics of pathogens



Anamnesis

- age;
- complaints;
- family history;
- lifestyle, nutrition, bad habits, working and living conditions;
- past illnesses;
- menstrual and reproductive functions, the character of contraception;
- gynecological diseases and operations on the genitals;
- the history of the present disease.
- physical examination

Anamnesis | the common cases

- **Amenorrhea** - absence of menstruation;
- **Hypomencastral syndrome** is expressed in reduction (hypomenorrhoea), shortening (oligomenorrhea), and decreasing (opsonomena) of menstruation.
- **Menorrhagia** - bleeding associated with the menstrual cycle.
- **Metrorrhagia** is an acyclic uterine bleeding that is not associated with the menstrual cycle and usually occurs with various ovarian disorders due to disturbances in ovulation processes.
- **Menometrorrhagia** - bleeding in the form of profuse menstruation, continuing in the intermenstrual period.
- **Algodismenorea** - painful menstruation.

Gynecological examination

*is carried out on the gynecological chair.

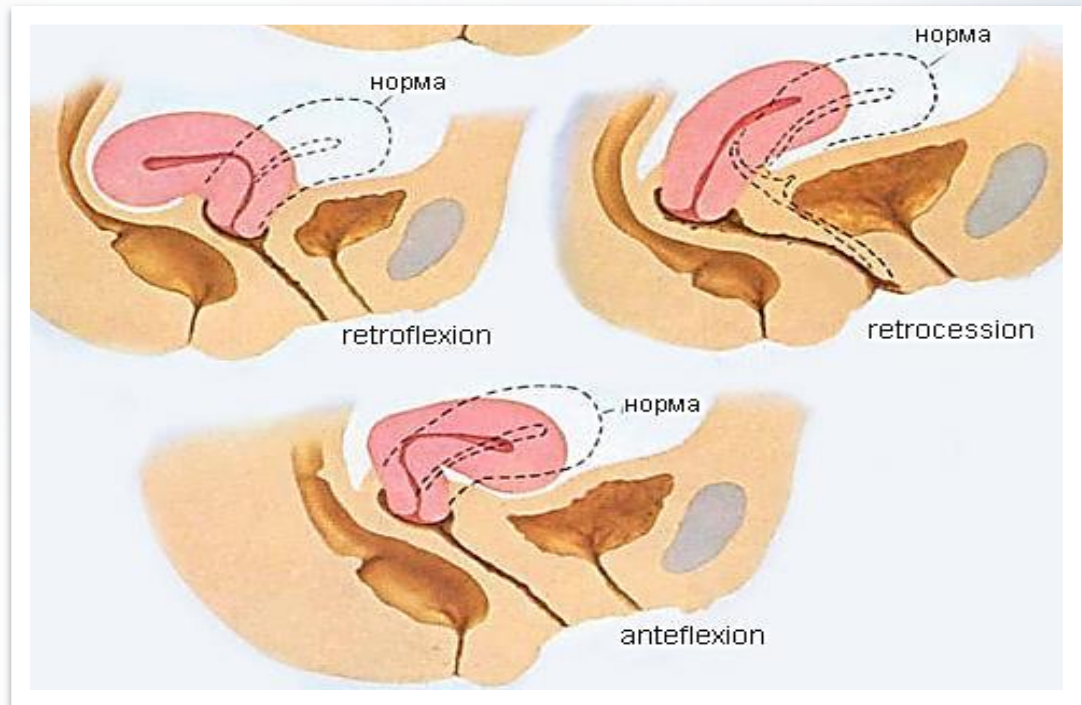
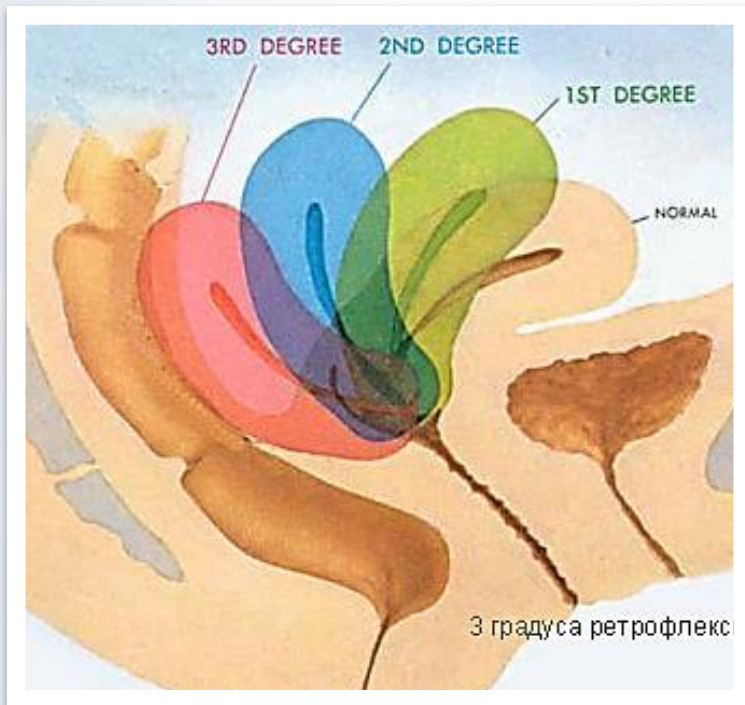
In a healthy, mature, nonpregnant and unkempt woman, the vertical position of the genitalia is considered normal (typical).



Gynecological examination

The normal position of female genital organs is provided by:

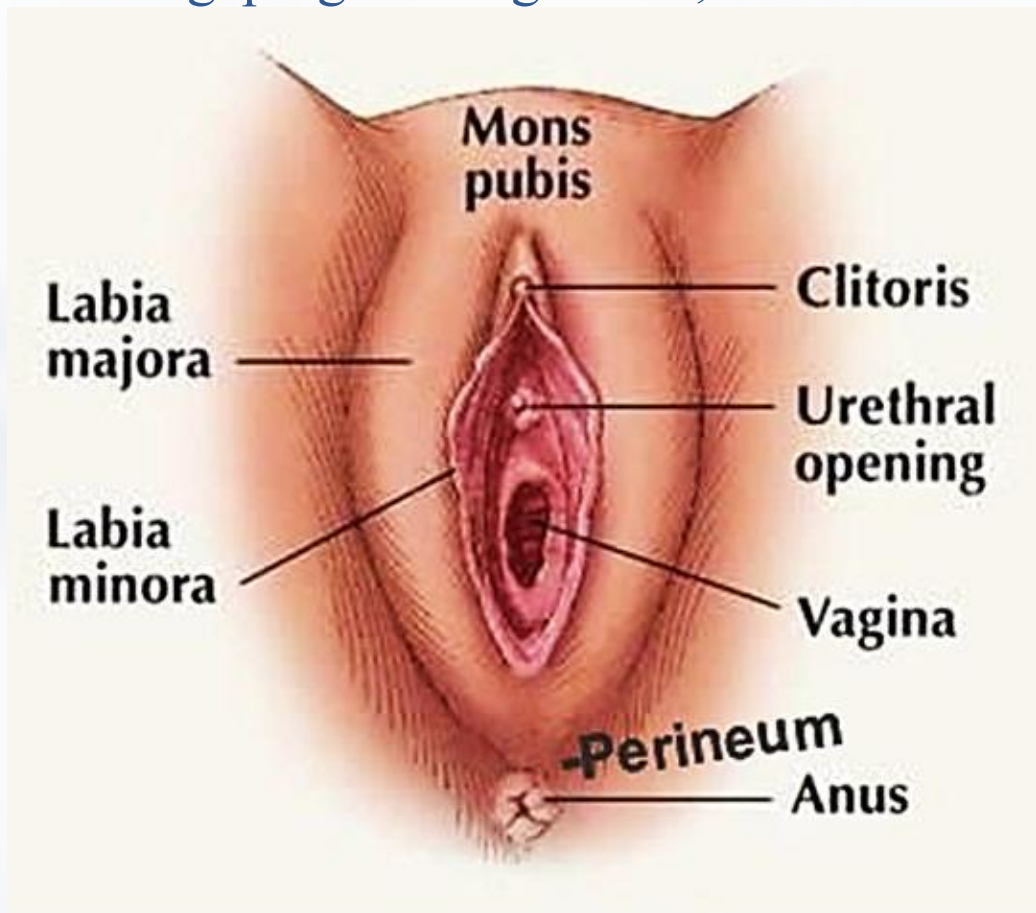
- own tone of genital organs;
- the relationship between internal bodies and the activity of the diaphragm, abdominal wall and pelvic floor;
- ligamentous apparatus of the uterus (suspension, fixation and holding).



Examination of external genitalia

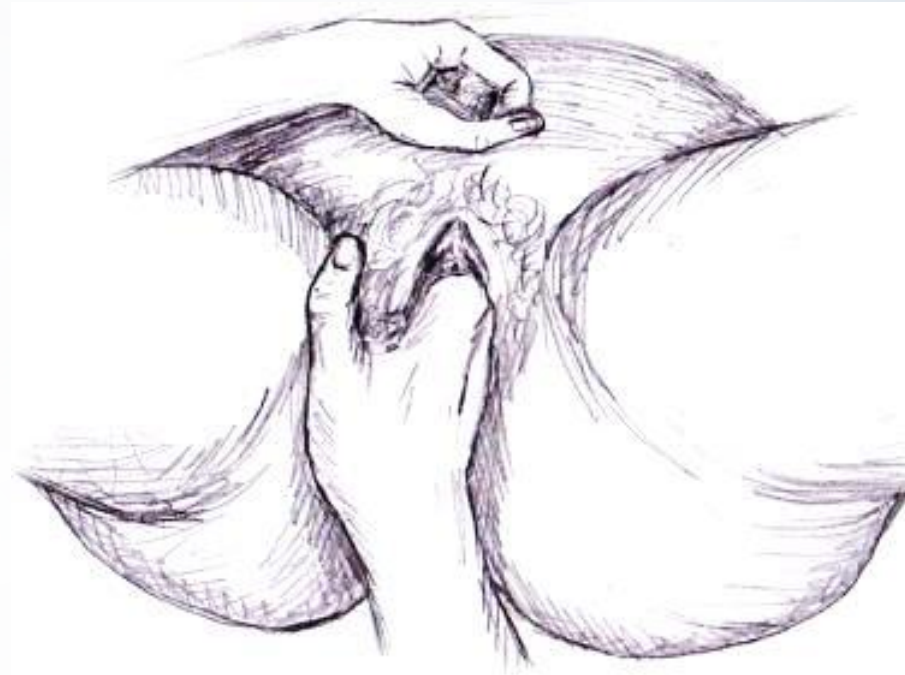
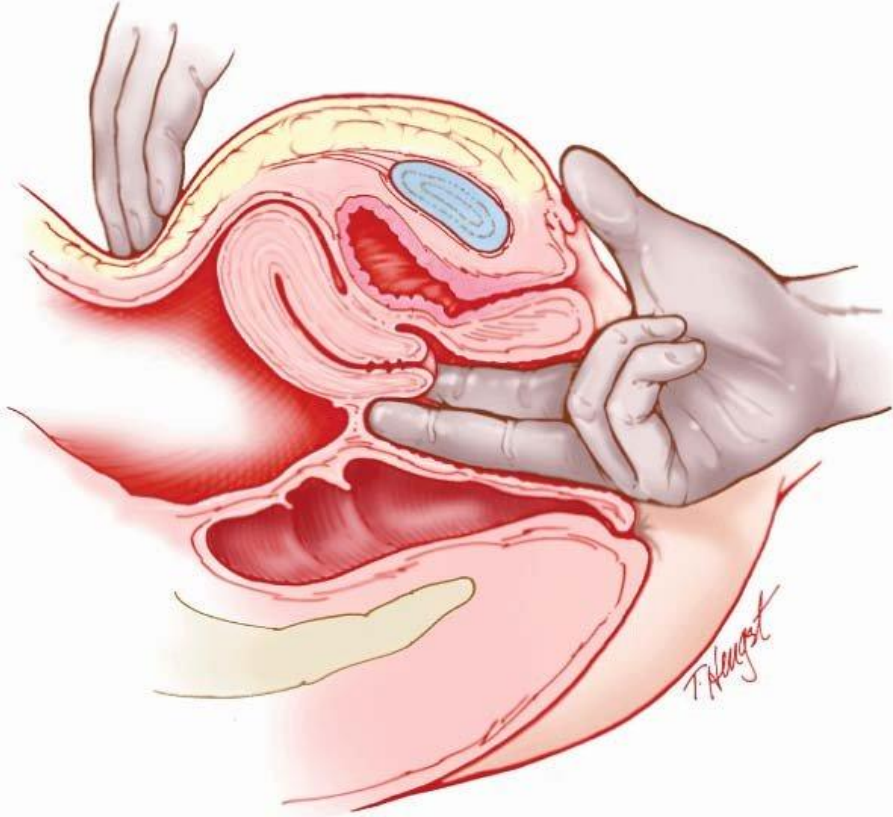
Examination of external genitalia: the condition and magnitude of small and greater the labia; condition of the mucous membranes; the size of the clitoris; degree and nature of development of the hairline; a condition of a perineum; pathological.

Pay attention also to the gaping of the genitals;



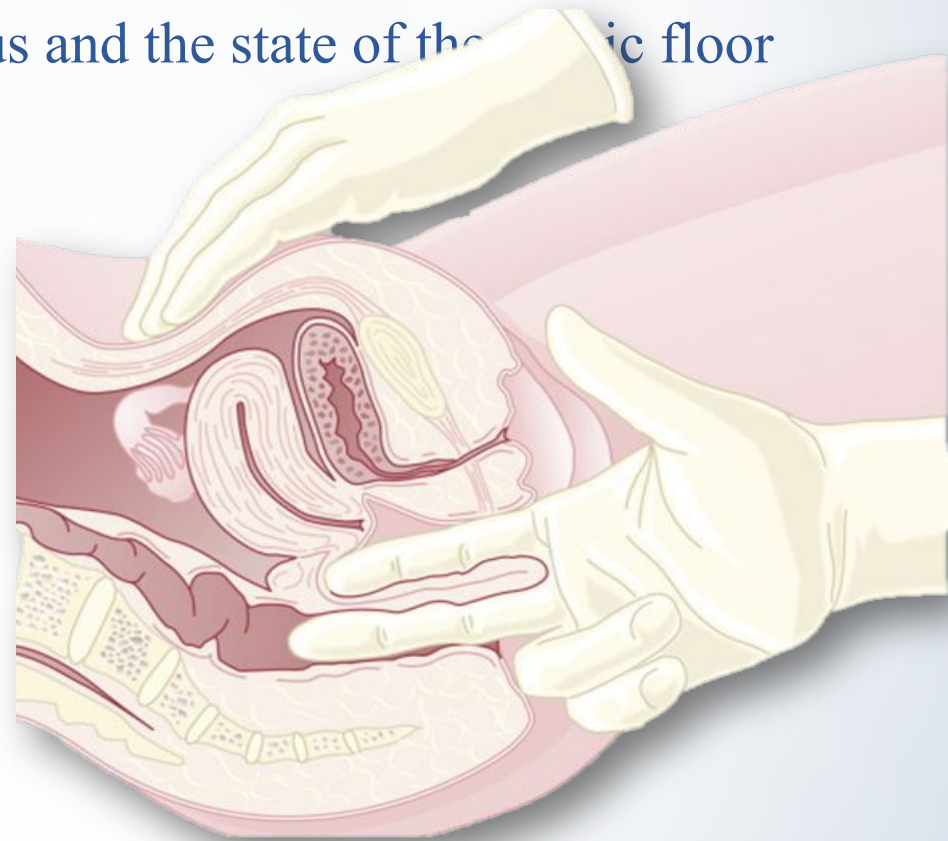
Bimanual vaginal-abdominal examination

The index and middle fingers of one hand (usually right), dressed in a glove, are inserted into the vagina. The other arm (usually the left one) is placed on the anterior abdominal wall. The right hand palpates the walls of the vagina, its arches and cervix, determine the volume of formation and anatomical changes



Rectal and vaginal-rectal examination

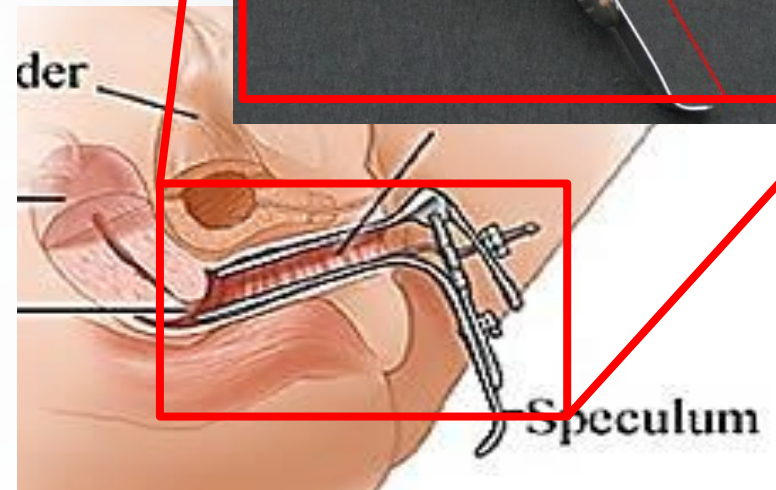
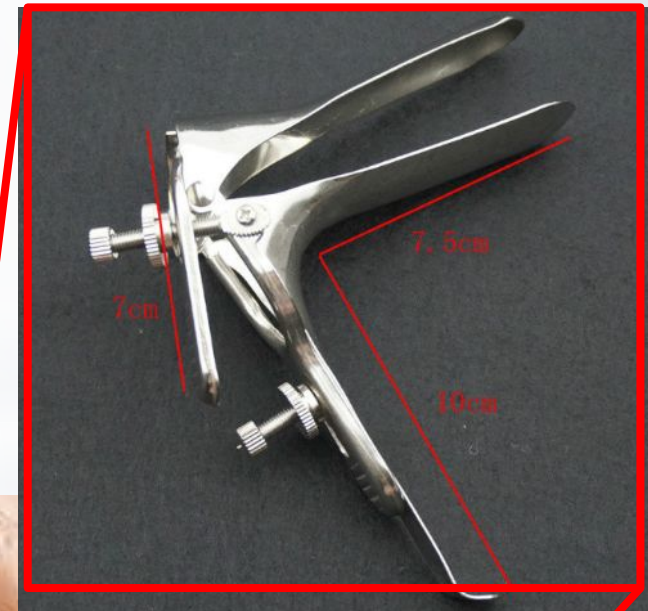
- is mandatory in postmenopause
- to clarify the status of the uterine appendages
- should be given to all women over 40
- the tone of the sphincters of the anus and the state of the pelvic floor muscles volumetric formations



Instrumental examination methods

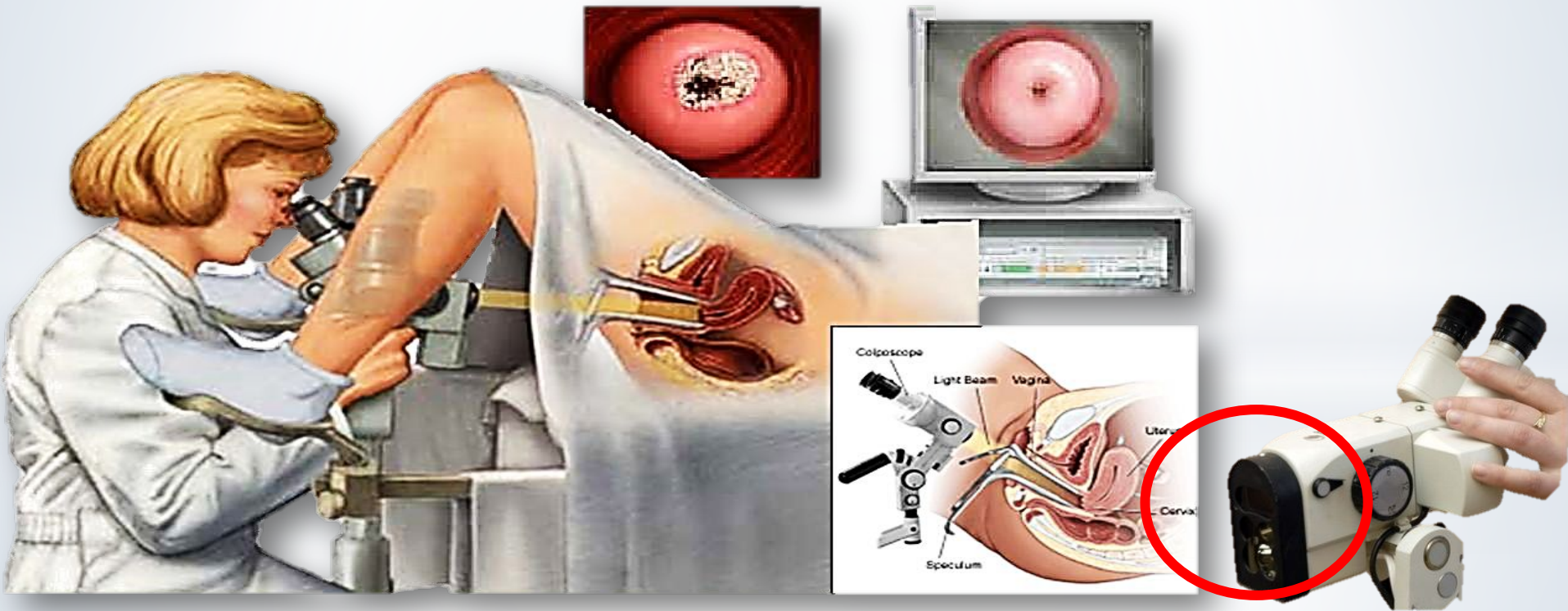
!!!To women, leading sex life.

Timely recognition of diseases of the cervix, erosions, polyps and other pathology is possible by mirrors.



Endoscopic methods.

Colposcopy - examination of the vaginal part of the cervix with an increase in dozens of times with the help of a colposcope; can be simple (review colposcopy) and extended (using additional tests and dyes).



Source: American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology screening guidelines for the prevention and early detection of cervical cancer, [Debbie Saslow PhD](#), [Diane Solomon, MD](#), [Herschel W. Lawson MD](#), [Maureen Killackey MD](#), [Shalini L. Kulasingam PhD](#), [Joanna Cain MD](#), [Francisco A. R. Garcia MD, MPH](#), [Ann T. Moriarty MD](#), [Alan G. Waxman MD, MPH](#), [David C. Wilbur MD](#), [Nicolas Wentzensen MD, PhD, MS](#), [Levi S. Downs MD Jr](#), [Mark Spitzer MD](#), [Anna-Barbara Moscicki MD](#), [Eduardo L. Franco DrPH](#), [Mark H. Stoler MD](#), [Mark Schiffman MD](#), [Philip E. Castle PhD, MPH](#), [Eva R. Myers MD, MPH](#), [ACS-ASCCP-ASCP Cervical Cancer Guideline Committee](#).

Colposcopic microscopy

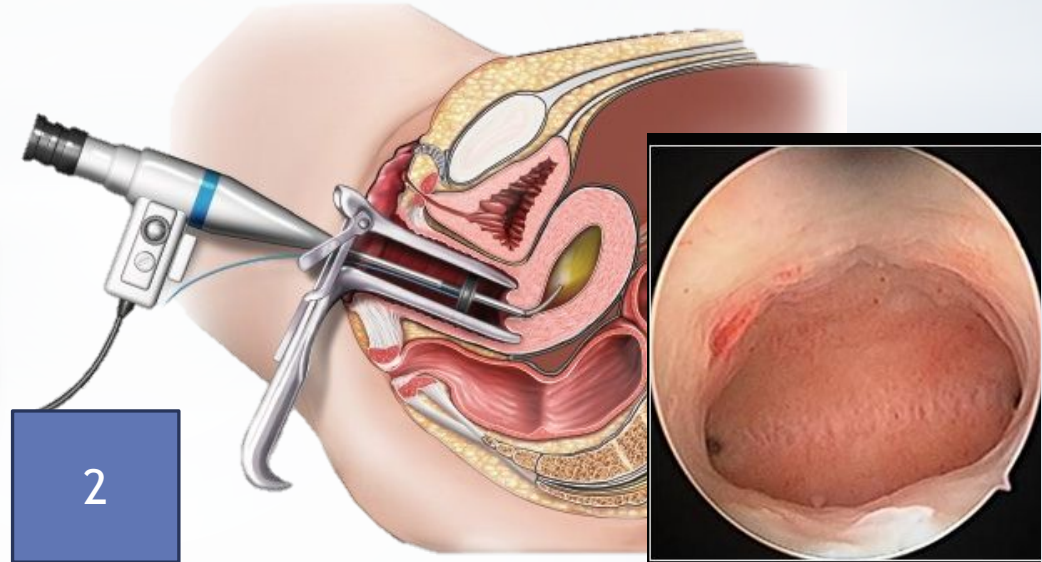
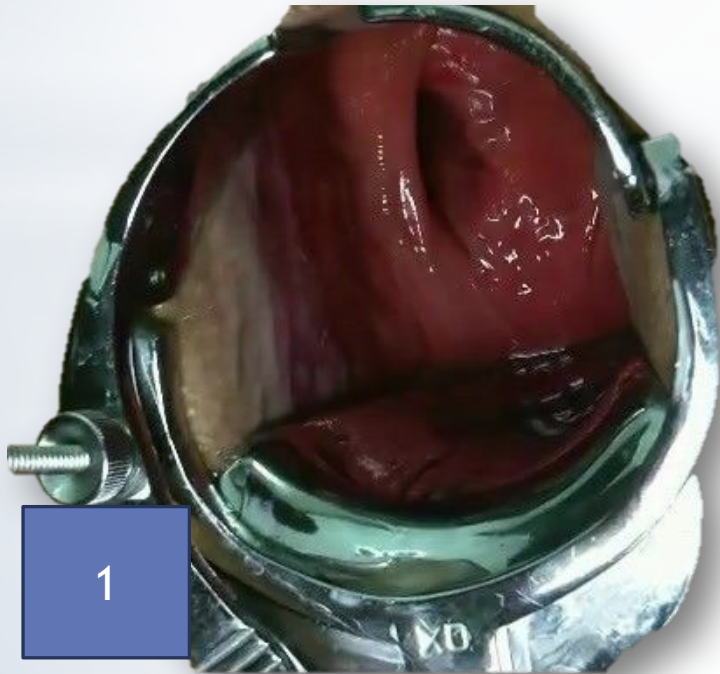
examination of the vaginal part of the cervix with an optical system (contrast luminescent colpomicroscope or colpomicroscope Hamo - type of hysteroscope).



Hystercervical examination and Hysteroscopy

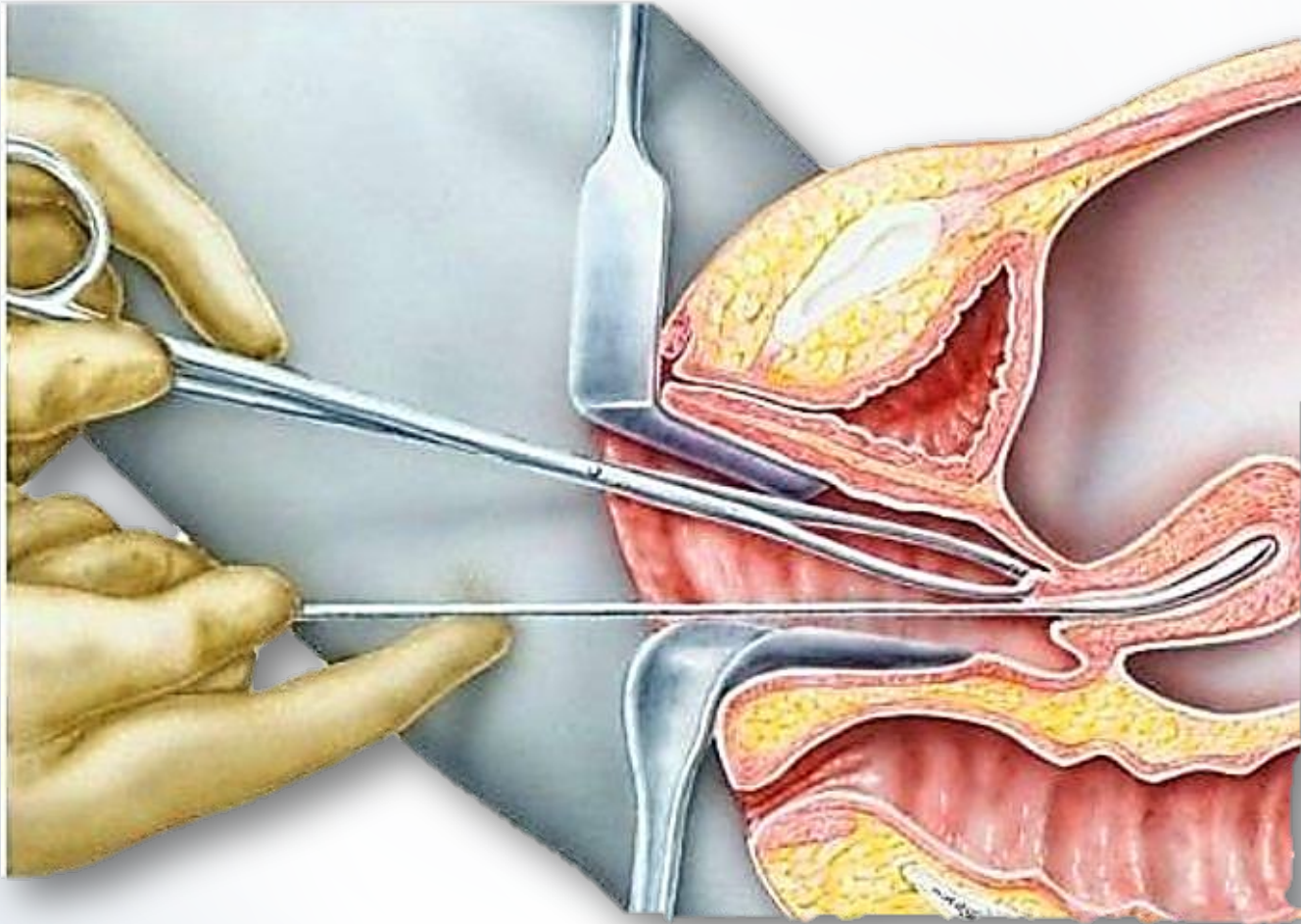
Hystercervicaloscopy - examination with the help of optical systems of the internal surface of the uterus and the cervical canal.

Hysteroscopy can be diagnostic and operating. Diagnostic hysteroscopy is currently the optimal method of diagnosing all types of intrauterine pathology.



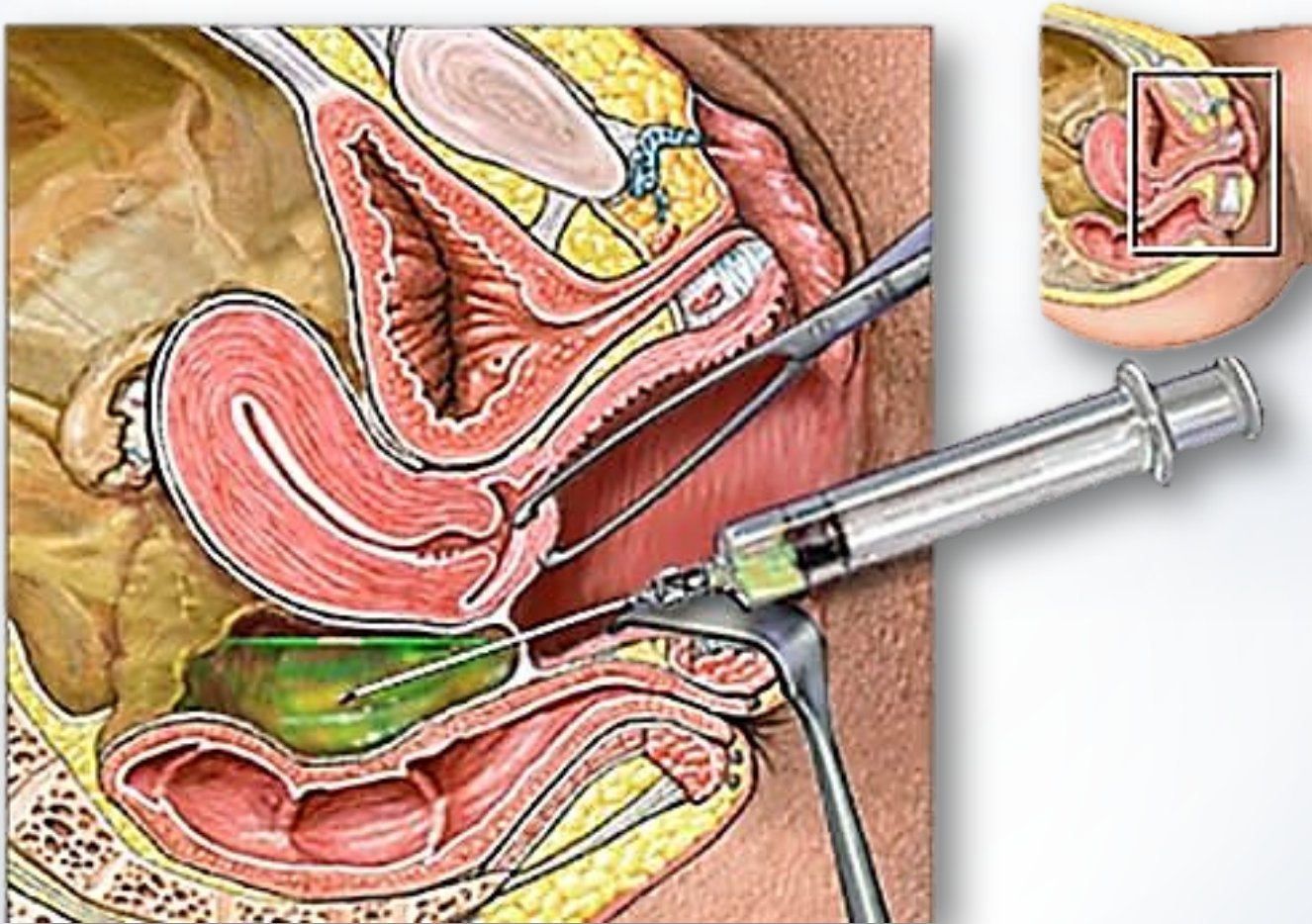
Probing the uterus

an invasive diagnostic method used to establish position and direction of the uterine cavity, its length



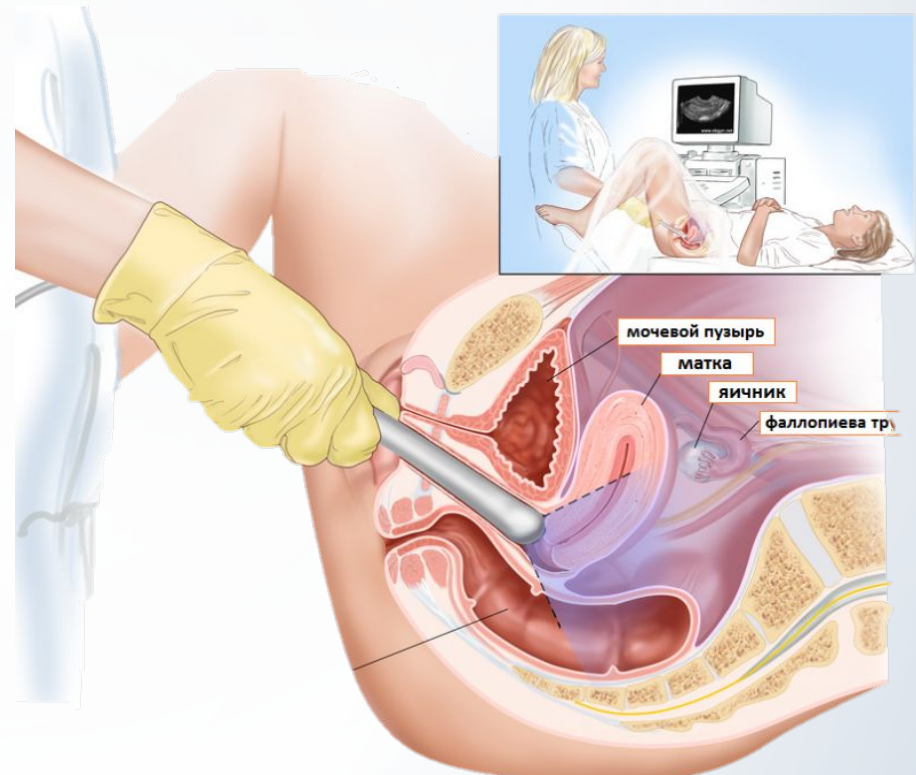
Puncture of abdominal cavity through posterior vaginal arch.

This puncture is performed when it is necessary to ascertain the presence or lack of free fluid (blood, pus) in the cavity of the small pelvis



Ultrasound

The **ultrasound technique** assumes an assessment of the location of the uterus, its size, outer contour and internal structure. The size of the uterus is subject to individual and is determined by a number of factors (age, number of previous pregnancies, phase of the menstrual cycle). The size of the uterus is determined by longitudinal scanning (length and thickness), the width is measured with transverse scanning.



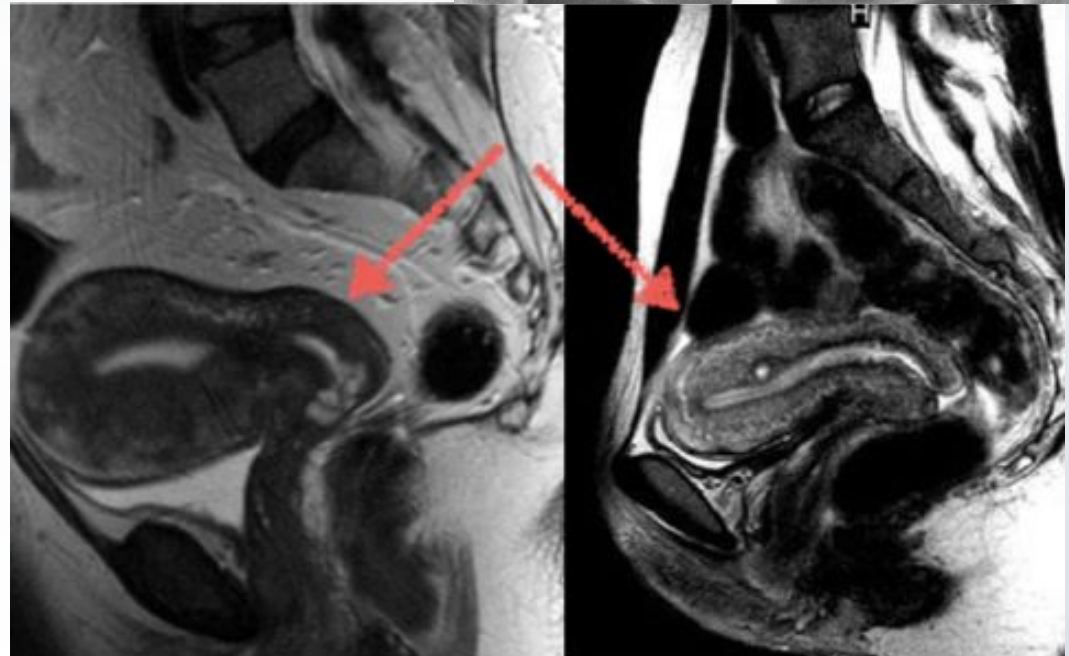
X-ray methods of research

Hysterosalpingography (at present - rarely)

X-ray examination of the skull

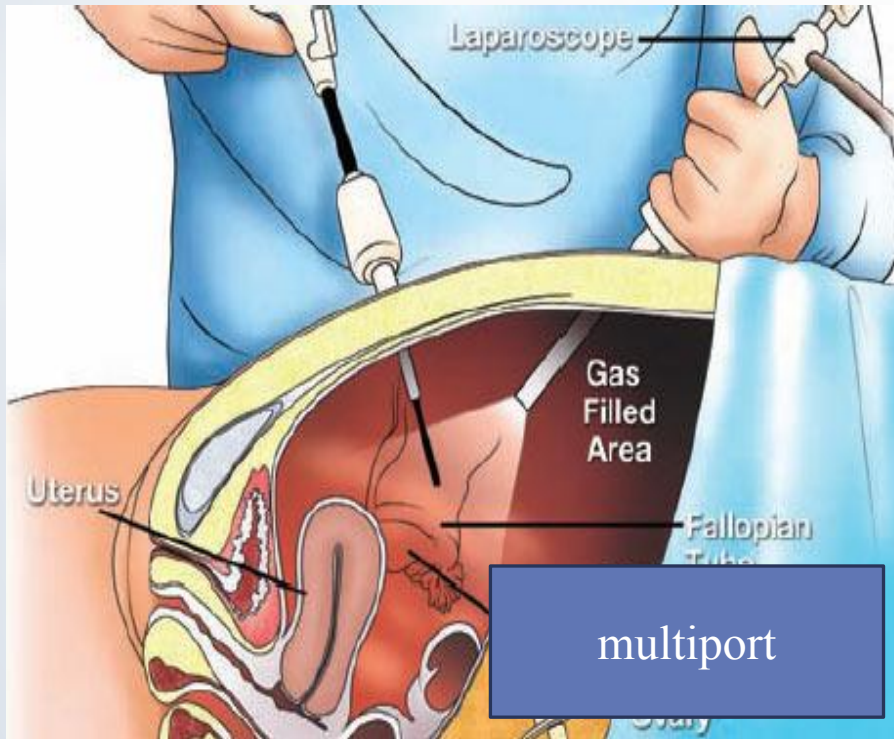
Computed tomography (CT)

Magnetic resonance imaging (MRI)



Laparoscopy

- examination of the abdominal cavity organs by an endoscope inserted through the anterior abdominal wall while creating the pneumoperitoneum in the background.



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J. Reprod. Dev. 2017 Dec 15;63(6):617-622. doi: 10.1262/jrd.2017-063. Epub 2017 Oct 14.

A transvaginal endoscopy-based technique for performing ovarian examinations in sows.

Okuyama MW^{1,2,3}, Sugiura T¹, Moriyoshi M¹, Yamashita K⁴, Tamura J⁴, Katagiri S^{1,5}.

Author information

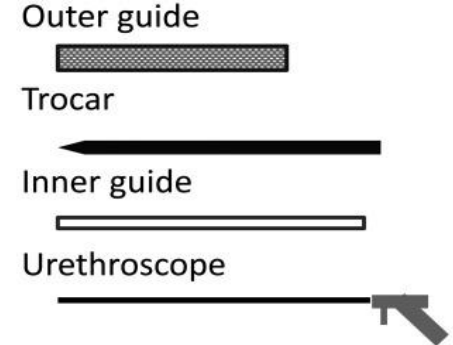
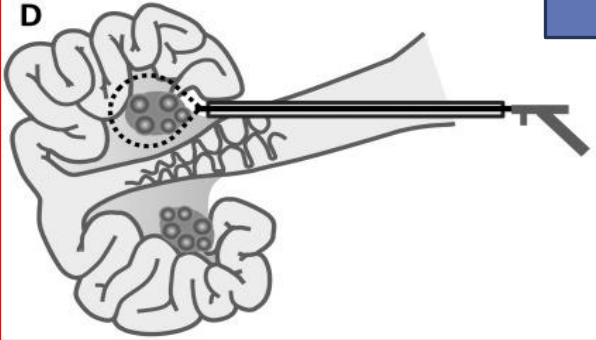
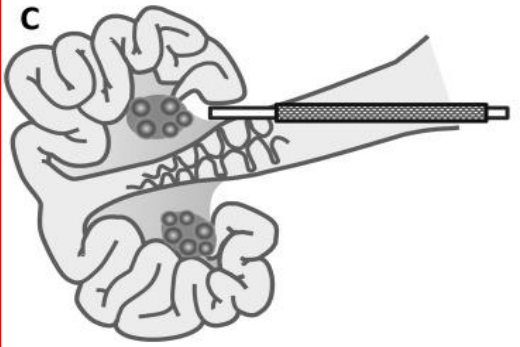
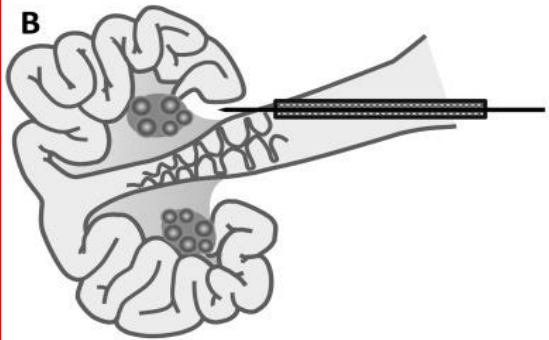
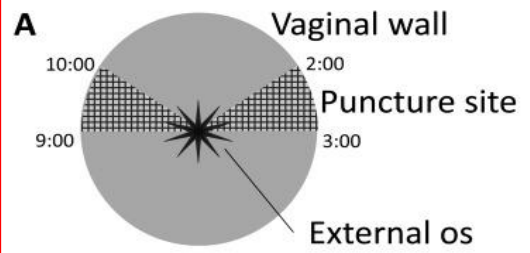
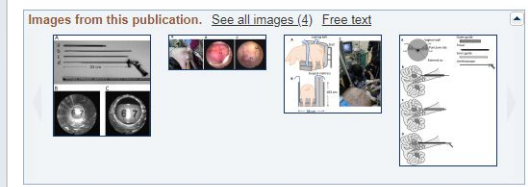
Abstract
 For examining pig ovaries, which have complex structures, laparoscopy is a useful technique, but requires general anesthesia; therefore, it cannot be performed repeatedly within a short period of time. We report a transvaginal endoscopy-based technique for conducting ovarian examinations without general anesthesia. Sows were sedated in pig stalls. Using a colonoscope, the vaginal wall was punctured with a trocar. To avoid the trocar being caught in the broad ligament of the uterus or the connective tissue around the vagina, the trocar was inserted close to the external uterine os and between the 2:00 and 3:00 or the 9:00 and 10:00 positions (in a clockwise direction). Then, a urethroscope was inserted into the abdomen, and an examination was carried out after the ovaries had been moved towards the urethroscope camera via rectal palpation. This less invasive procedure may allow repeated examinations and will increase our understanding of ovarian dynamics in pigs.

KEYWORDS: Ovarian observation; Sows; Transvaginal endoscopy

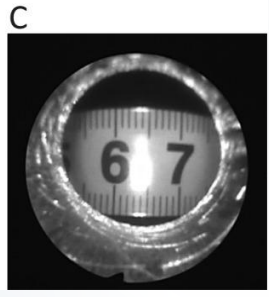
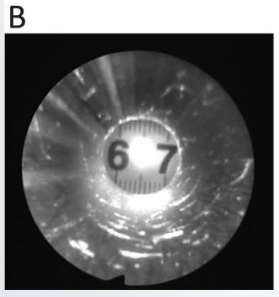
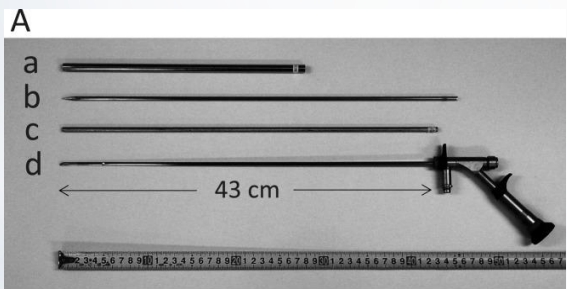
PMID: 29033397 PMCID: PMC5735274 DOI: 10.1262/jrd.2017-063

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Instead laparascopy



Tissue biopsy and cytology

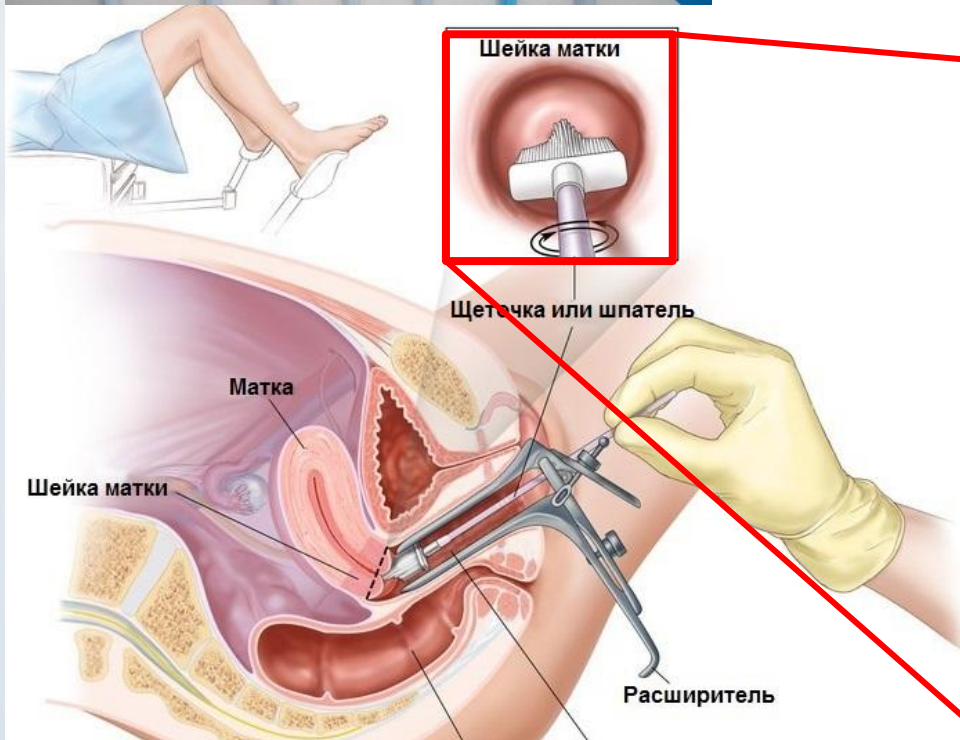
In gynecology used **excisional biopsy** (excision of a piece of tissue), **targeted biopsy** - under the visual control of an enlarged colposcopy or hysteroscope and a puncture biopsy.

Cytological examination is a screening method for conducting mass preventive examinations of women, in groups at increased risk for the development of cancer.



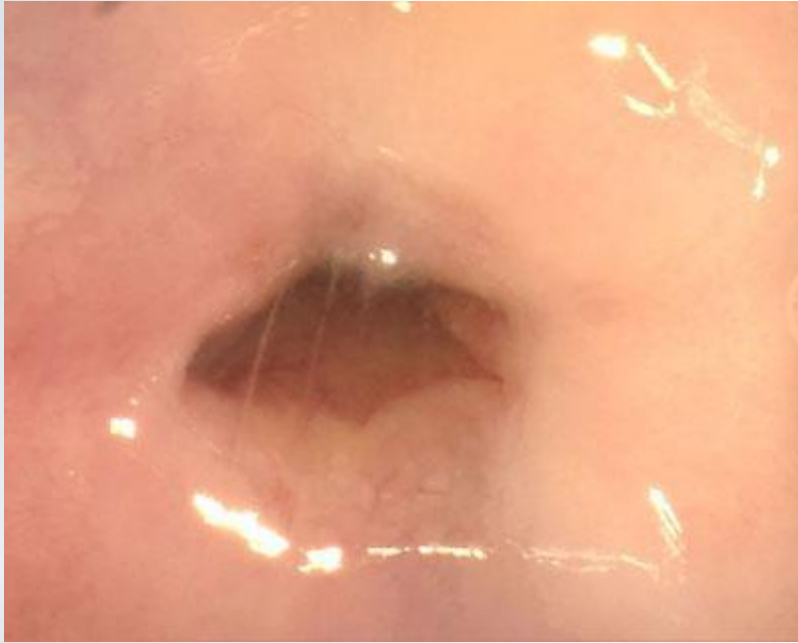
Cervical brush

The brush together with the dilator Cusco is injected into the vagina. The brush is brought to the neck, twisted, and evacuated from the vagina. Then a bacterioscopic or bacteriological study is performed.

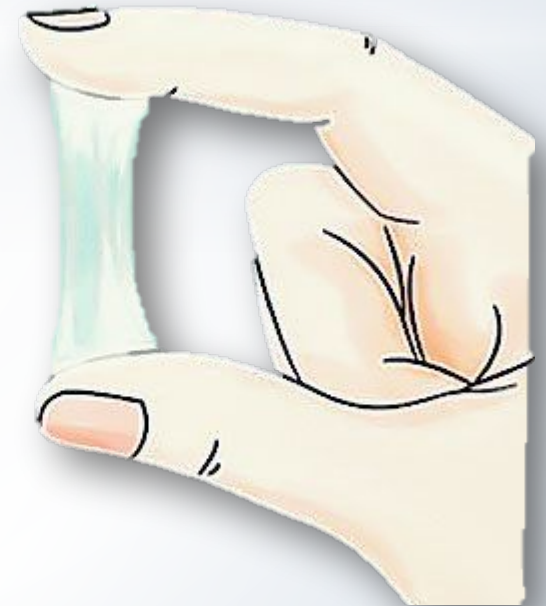
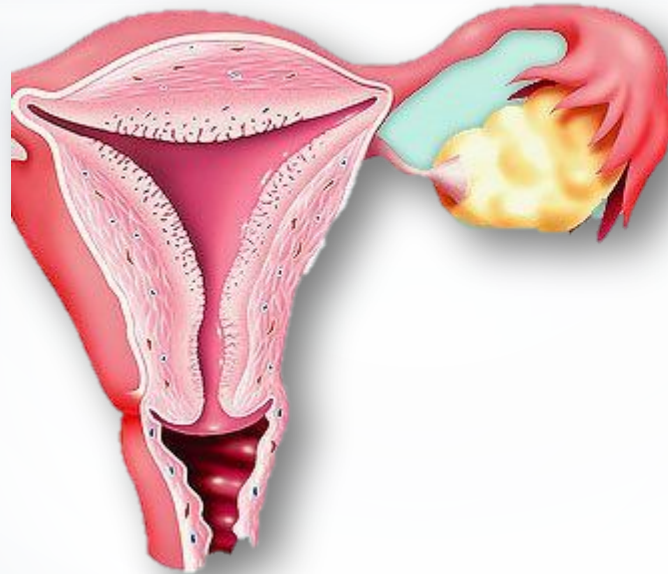


Source: The efficiency of the Cytobrush versus the cotton swab in the collection of endocervical cells in cervical smears. (PMID:3521175), Trimbos JB, Arentz NP, Acta Cytologica, [01 May 1986, 30(3):261-263]

Special examination methods



- The symptom of “pupil”
- The symptom of the extension of the cervical mucus
- KPI
- Basal temperature



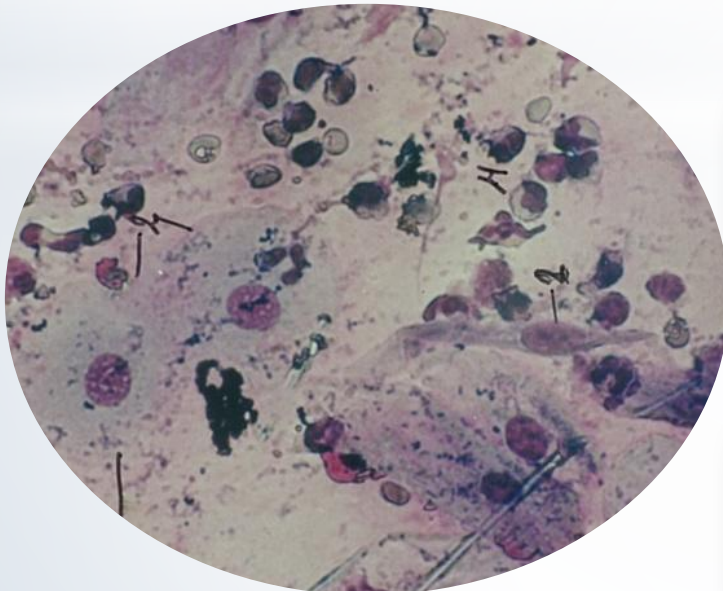
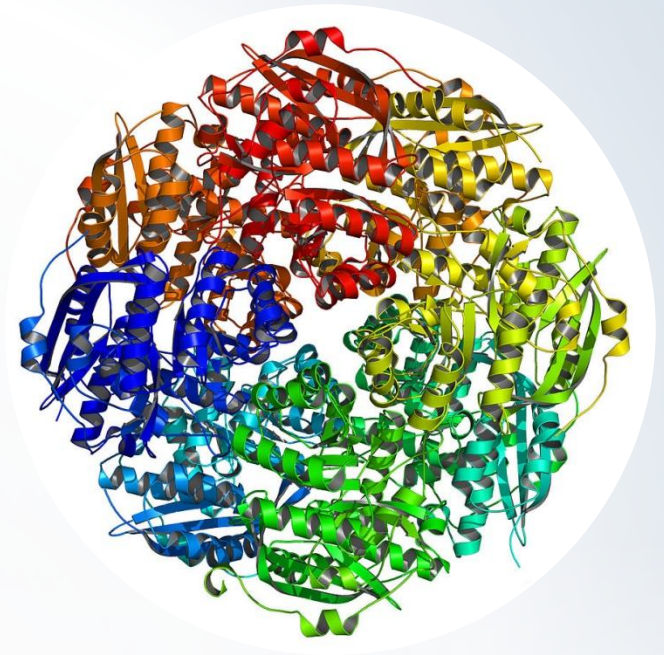
Bacteria

Bactrioscopic (microscopic)

The cultural method

Molecular biological methods

Bacteriological diagnosis



Source: The vaginal microbiome: new information about genital tract flora using molecular based techniques, [RF Lamont](#) , [JD Sobel](#) , [RA Akins](#), [SS Hassan](#), [Chaiworapongsa](#), [JP Kusanovic](#), [R Romero](#).

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Gynecol Obstet Invest. 2017 Nov 7. doi: 10.1159/000481798. [Epub ahead of print]

Evaluation of Serum Nidogen-2 as a Screening and Diagnostic Tool for Ovarian Cancer.

Torky HA¹, Sherif A², Abo-Louz A¹, Ali M², Ahmed A³, Ali A².

Author information

- 1 Department of Obstetrics and Gynecology, October 6th University, Cairo, Egypt.
- 2 Department of Obstetrics and Gynecology, Ain-Shams University, Cairo, Egypt.
- 3 Department of Obstetrics and Gynecology, Al-Galaa Teaching Hospital, Cairo, Egypt.

Abstract

INTRODUCTION: Ovarian cancer is a relatively common occurrence with the formation of a tumour in the ovaries and is the leading cause of death in the gynecological field. Despite enormous efforts, there are no successful screening methods developed until now to decrease mortality in this regard.

AIM: To evaluate nidogen-2 as a new tumour marker combined with higher sensitivity, specificity and accuracy than carbohydrate antigen (CA-125) and Doppler ultrasound to improve early diagnosis of ovarian cancer.

PATIENTS AND METHODS: One hundred and forty-four qualified women with a preliminary diagnosis of adnexal mass were subjected to history, examination, transvaginal Doppler ultrasound and Quantitative assessment of serum level of CA-125 and nidogen-2 followed by the resection of the masses, which were sent for histopathological examination.

RESULTS: One-hundred and sixteen cases were benign and 28 cases were malignant. The surgical procedures ranged from limited resection to radical hysterectomy. There was a highly significant correlation between both serum nidogen-2 and CA-125 and the results of histopathological examination ($p = 0.0001$). Serum nidogen-2 had 91.6% sensitivity, 62% specificity, 37.1% positive predictive value, 97.9% negative predictive value and 68% accuracy ($p < 0.05$).

CONCLUSION: Nidogen-2 is a new promising ovarian malignancy biomarker that correlates closely with ultrasound and CA125. It did improve the accuracy of diagnosis, but further studies are needed.

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KEYWORDS: Diagnosis; Nidogen-2; Ovarian cancer; Tumour marker



WHY
SO
SERIOUS?

Stuart
30-08-12

1	1	2	3
2	1	2	3
3	1	2	3



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