Federal State Budgetary Educational Institution of Higher Education Krasnoyarsk State Medical University named after V. F. Voyno-Yasenetsky Department of Obstetrics and Gynecology IPO

Postpartum purulent-septic diseases in obstetrics. The role of the dentist in their prevention.

lecture for students,
specialty 31.05.03 Dentistry

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POSTPARTUM INFECTIOUS DISEASES -

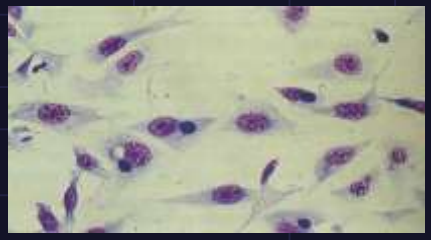
diseases observed in puerperas, pathogenetically directly related to pregnancy and childbirth and occurring within 42 days from the moment of childbirth.

Infectious diseases detected in the postpartum period, but pathogenetically not associated with pregnancy and childbirth (flu, tonsillitis, etc.), are not included in the group of postpartum diseases.

Causative agents of purulent-septic diseases

1. ***Potentially pathogenic:***

- **gram-positive aerobic bacteria (enterococci, aureus and epidermal staphylococci, group A and B streptococci)**
- **Gram-negative aerobic bacteria of the Enterobacteriacea family (E. coli, Klebsiella, Proteus, Enterobacteriaceae, Pseudomonas aeruginosa)**
- **anaerobic non-spore-forming microorganisms (bacteroids, peptococci, peptostreptococci)**
- **Chlamydia trachomatis**



- ***Conditionally pathogenic microorganisms:***
- **Gardnerella vaginalis (in 25-60%)**
- **Gram-positive cocci (Streptococcus group D)**
- **often - Mycoplasma hominis, Ureaplasma urealyticum**

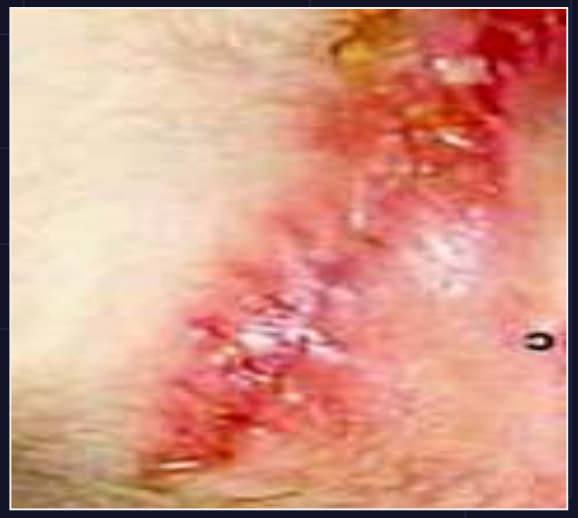
Bartels-Sazonov classification

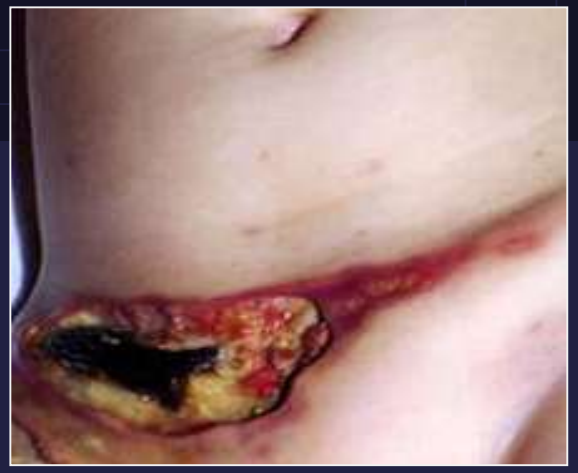
The first stage - **the infection is limited to the area of the birth wound:**

- postpartum endometritis,

- postpartum ulcer (on the perineum, vaginal wall, cervix),

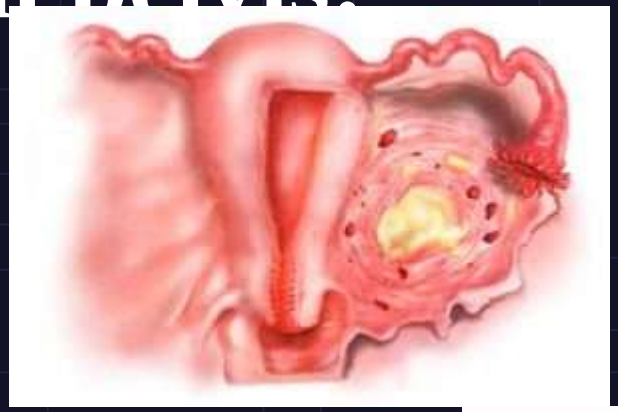
- infection of the postoperative wound on the anterior abdominal wall after caesarean section.





Bartels-Sazonov classification

The second stage - **the infection spread beyond the birth wound, but remained localized within the small pelvis:**



-metroendometritis,

-parametritis,

-salpingoophoritis,

-limited thrombophlebitis,

-pelvic abscess.

Bartels-Sazonov classification

The third stage - *the infection has gone beyond the small pelvis and tends to generalize:*

progressive thrombophlebitis

diffuse peritonitis

anaerobic gas infection

The fourth stage is a generalized infection:

sepsis

**septic shock*

Postpartum ulcer

It occurs due to infection of abrasions, cracks, ruptures of the mucous membrane of the vagina and vulva. This group of diseases also includes suppuration of the wound after perineotomy or perineal rupture.

***Diagnosis** of the disease does not cause difficulties:* **the condition of the mothers remains satisfactory.**

-there is hyperemia, edema, necrotic and purulent plaque in the area of infection.

Local treatment: treatment with antiseptic solutions, with suppuration of the wound after perinetomy, secondary sutures are applied.

Postpartum endometritis

Causes of postpartum endometritis after caesarean section

< an incision on the uterus is accompanied by a violation of the integrity of the blood and lymphatic vessels, which contributes to direct bacterial invasion into the circulatory and lymphatic system of the uterus (the spread of the process beyond the wound - myometrium, parametrium);

< an operation performed against the background of chorionamnionitis causes a direct spread of infection to the peritoneum with the occurrence of “early peritonitis”;

< the presence of a suture on the uterus helps to slow down t involution of the uterus in the postpartum period, disrupts th normal outflow of lochia, creating favorable conditions for th development of microorganisms.

Послеродовый эндометрит

ДИАГНОСТИКА

1. Клинические данные:

- **неоднократный подъем температуры**
- **болезненность матки при пальпации**
- **гноевиные лохии**

2. Лабораторные методы диагностики.

- **лейкоцитоз 12 х 10^9/л и более**
- **палочкоядерные нейтрофилы 10 % и более**
- **гипохромная анемия**
- **ускорение СОЭ**
- **снижение уровня общего белка плазмы крови**

3. Бактериологическое исследование.

выделение этиологически значимых микроорганизмов в количестве 10^4 КОЕ/мл и более.

4. УЗИ.

5. Гистероскопия.

Postpartum endometritis

TREATMENT

Complex character:

-limitation of the inflammatory process (sanation of the focus of infection)

-the use of broad-spectrum antibacterial drugs

-infusion of crystalloids, in case of inefficiency - the connection of vasopressors and inotropic drugs

-adjuvant therapy (ventilator, transfusion therapy, renal replacement therapy, nutritional support, etc.)

Parametritis

this is a purulent-infiltrative lesion of the cellular tissue of the small pelvis (more often the lymphogenous route of infection)

Predisposing factors:

-lateral ruptures of the cervix II-III degree (unrecognized, unsutured), sometimes complicated by a hematoma between the layers of the broad ligament of the uterus

-untimely diagnosis or incorrect medical tactics in the presence of wound infection and postpartum endometritis (generalization!)

-postpartum thrombophlebitis of the parametric veins as a result of purulent fusion of infected blood clots

Parametritis

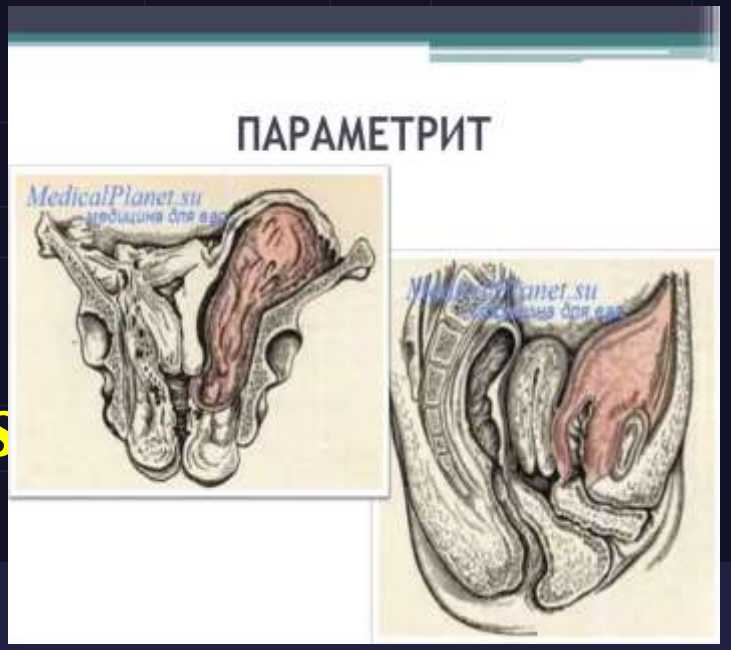
Classification

1. Depending on the topography of the pelvic tissue:

- *lateral parametritis*
- *anterior parametritis*
- *posterior parametritis*

2. According to the clinical cours

- *acute parametritis*
- *subacute parametritis*
- *chronic parametritis*



Parametritis

Clinic

1. Begins on the 7-10th day after childbirth.

2. Chills, fever up to 38-39º and above.

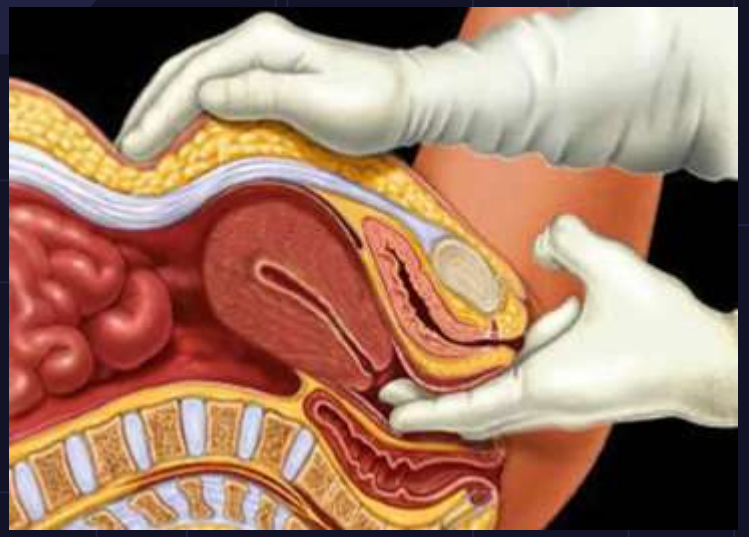
3. Complaints of persistent pain in the lower abdomen, in the left or right iliac region, radiating to the sacrum and lumbar region.

4. Pain during urination and pyuria (the threat of an abscess rupture into the bladder), tenesmus and diarrhea (the threat of an abscess rupture into the rectum).

5. Symptoms of thromboembolism (with upper lateral parametritis): associated with periphlebitis and thrombosis of the external iliac vein.

Parametritis

Diagnostics:



1. Clinic.

2. Bimanual examination

3. Rectovaginal examination:

4. Clinical and biochemical analysis of blood.

5. Ultrasound

6. Computed tomography and echography of the kidneys

Parametritis

Treatment

Complex treatment:

antibacterial, multicomponent infusion, detoxification, symptomatic therapy, etc.

Surgical treatment:

opening and drainage of an abscess (vaginal access) or after laparoscopy followed by drainage of periuterine tissue..

Obstetric peritonitis

this is inflammation of the peritoneum, which is accompanied by a complex of severe pathophysiological reactions leading to dysfunction of all body systems

Occurs against the background of metroendometritis, necrosis of the myomatous node, torsion of the pedicle of the ovarian tumor, destruction of purulent formations of the uterine appendages, appendicitis.
However, the most common cause of obstetric peritonitis is endometritis after caesarean section.

Obstetric peritonitis

Variants of the clinical course (depending on the route of infection):

I. Peritonitis against the background of chorioamnionitis (30%):

- occurs due to infection of the peritoneum during the operation, which is performed against the background of chorioamnionitis.

- the source of infection is the contents of the uterus that entered the abdominal cavity during the opening of its cavity.

II. Peritonitis due to impaired intestinal barrier function (15%):

penetration of infection through the altered intestinal wall into the abdominal cavity as a result of prolonged paresis in postoperative endometritis

III. Peritonitis due to defective sutures on the uterus (55%):

- occurs due to the inferiority of the sutures on the uterus with their subsequent divergence (secondary peritonitis)

Obstetric peritonitis

Diagnostics

1. Clinical picture - evaluation of the effectiveness of the therapy, "recurrence of symptoms"

2. Laboratory diagnostics

3. Echography -

- free fluid in the uterine-rectal space, lateral canals of the abdominal cavity, between intestinal loops, under the liver and diaphragm

- accumulation of gas and fluid in overdistended bowel loops

- Weakening or absence of intestinal peristalsis.

4. X-ray examination: paralytic ileus

- distension of the intestinal wall

- horizontal liquid levels and Cloiber bowls

5. Laparoscopy - if necessary, differential diagnosis between endometritis and peritonitis

Obstetric peritonitis

Treatment

I clinical variant (against the background of chorioamnionitis):

- the only option when only intensive conservative therapy is possible (if it is effective)

- conservative therapy is carried out no more than a day

- further - the issue of surgical treatment is being resolved.

II clinical variant (due to intestinal paresis):

- Delay with the operation is unacceptable

III clinical variant (due to the inferiority of the sutures on the uterus):

- active surgical tactics are shown

Treatment of postpartum NHS

1. Antibacterial therapy:

Cephalosporins (kefzol, fortum, cefamesin, cefotaxime)

Nitroimidazoles (trichopolum, tinidazole, metrogil)

Aminoglycosides (gentamicin)

Penicillins with beta-lactamase inhibitors

Lincomycin or clindamycin

+ Prevention of candidiasis (nystatin, fluconazole, itraconazole, etc.)

+ Correction of the biocenosis of the vagina and intestines (probiotics and eubiotics - bifidum- and lactobacterin, normloflorin, etc.)

2. Surgical treatment of the uterine cavity

3. Infusion and detoxification therapy

4. Treatment and prevention of intestinal paresis

5. Uterotonics

Sepsis is a life-threatening organ dysfunction caused by the body's dysregulatory response to infection.

Sepsis is always a secondary process.

Primary focus:

- in 30% - endometritis

- in 30% - mastitis

- in 30% - obstetric peritonitis

Laboratory and instrumental studies for suspected sepsis

1. Blood culture before antibiotic prescription (AB)
2. Determination of lactate in blood serum.
3. Studies aimed at finding the source of infection (X-ray of the lungs, ultrasound of the abdominal organs, Echo-CS).
4. Clinical blood test, platelets, urinalysis, coagulogram, plasma electrolytes.
5. Bacteriological examination depending on the clinic (lochia, urine discharge from the wound, nasopharynx).
6. Biomarkers (C-reactive protein, procalcitonin, presepsin).

Effective quality criteria:

- *Sanitation (removal) of the source of infec*
- *Decreased, no signs infectious process.*
- *Normalization of hemodynamic parameters (BP, heart rate).*
- *Normalization of kidney function (lack of signs of kidney failure).*
- *Recovery of consciousness.*
- *No evidence of ARDS and/or pneumonia.*
- *Cessation of ventilation.*

The role of a dentist in the prevention of purulent-septic complications of puerperas

The value of sanitation of the oral cavity during pregnancy is undeniable and important, and the elimination of foci of chronic odontogenic infection not only improves the dental status of a pregnant woman, reduces the risk of infection of the fetus, the development of prenatal and postnatal complications, but also helps to alleviate or eliminate extragenital diseases, which ultimately favorably reflects both on the health of the mother and on the development and health of the unborn child.

Conclusion

Widespread introduction of modern perinatal technologies in maternity hospitals:

- limiting the use in healthy women of means and methods of sanitation that violate the biocenosis of the body (surface antiseptics, pubic shaving);
- early attachment of the newborn to the breast;
- joint stay of mother and child with subsequent early discharge from the maternity hospital;
- exclusive breastfeeding on baby's demand without a night break, without the use of bottles and nipples)

- an essential condition for reducing the level of postpartum infectious diseases

литература

Основная

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Дополнительная

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