Birth injuries

During childbirth, various types of injuries can occur that have a certain treatment. In the following chapters, the individual injuries will be analyzed.

Usuration

Usuration arise from **necrosis tissue**, which arises from a lack of blood flow to the tissue or mucous membrane due to prolonged pressure on the fetal head. Subsequently, **fistulas may form**, and for this reason the woman may have to contend with leakage of urine through the vagina.

Cracks

During childbirth, cervix, the uterine body, vagina and dam may be injured.

Cervical tears

In almost every birth, the edges of the cervix will be injured. Cracks **up to 1 cm do not need to be treated** unless they are bleeding.
More serious problems are ruptures **along the length of the cervix** up to the vaginal arch. They often occur after conjugation or on the scar throat. They manifest severe bleeding from the uterine artery, which runs along the edge of the throat. Ruptures may extend **to the lower uterine segment** and due to their more difficult treatment may end **to hysterectomy** .

Vaginal tears

Often unrecognized and unpleasant are the cracks in the vaginal vault. **Colpaporrhexis** is a rupture when the **vagina completely separates from the cervix** . Poorly treated vaginal rupture causes blood to leak into the paracolipum and may accumulate in the retroperitoneum to form the **retroperitoneal hematomas** .

Hematomas

Distribution:

1. **Supralevators** - spreads to the retroperitoneum, rarer, often requires revision by the abdominal pathway
2. **Infralevators** - a hematoma in the paracolpium can reach up to 1,000 ml, dramatic course, the patient complains of pain in the rectum and lower abdomen, pale, mortgaged, may fall into hemorrhagic shock

Injury to musculus levator ani - avulsion injury to musculus puborectalis

The musculus puborectalis is part of the musculus levator ani muscle complexes and forms a genital hiatus. This expands during delivery, during this expansion the muscle may tear until it tears completely. This injury represents **avulsive injury** and is one of the reasons for later **descent of the pelvic organs**.

Vulvar and perineum tears

Vulvar tears of the small labia may appear from birth injuries. **Cracks in the crura clitoridis** often bleed profusely and require a **treatment**.
Perineum ruptures are the most common type of birth injury. They can affect all layers forming the perineum and according to the injury of the individual parts the injury is divided into four stages.
Division:

- **Grade 1** - perineum skin injury
- **Grade 2** - perineum muscle injury without sphincter injury
- **Grade 3** - injury affecting the anal sphincter (3A - injury to less than 50% of the sphincter, 3B - injury to more than 50% of the sphincter, 3C - injury to the external and internal sphincter without injury to the anal mucosa
- **Grade 4** - injury to the external, internal anal sphincter and anal mucosa

Grade 3 (C) and 4 injuries are treated **under general anesthesia in the operating room**, most commonly **overlap technique**, whereby the edges of the muscle are extruded and released so that the edges can be folded

over each other.
Unrecognized injury to the sphincter mucosa or its poor healing may cause the formation of a rectovaginal fistula.

Uterine rupture

Although the frequency of **occurrence** uterine ruptures **has decreased**, it still represents one of the causes of death in women related to pregnancy and childbirth. By uterine rupture we mean **violation of the integrity of the uterine wall** also **perforation of the uterine wall by a tool**.

Causes

- **severe contusion** in the higher stage of pregnancy (car crashes, impacts on the steering wheel, etc.)
- **scars** after previous caesarean sections (corporal, cervicocorporal section)
- during childbirth **by increasing intra-abdominal pressure**
- **disparity** between the head and pelvis in the pathological pelvis
- **Iatrogenic causes** - i.e. Kristeller expression (non lege artis), internal palpation turnover followed by fetal extraction
- common tumor, frontal position, hydrocephalus, etc.

Diagnostics of uterine rupture

The lower uterine segment is pulled out, the wall becomes thinner, the uterine body contractes and retards, and its wall thickens. The formation of a noticeable border between the lower uterine segment and the uterine body - Brandl's groove.
Brandl's groove rises towards the navel. The lower uterine segment becomes increasingly painful, the ligamenta teresis is well palpable, tense, and painful. The steady **thinning of the lower uterine segment** leads to a significant, very **painful contraction** and suddenly all **pain stops**. Within moments, symptoms of **haemorrhagic and peritoneal shock** appear. We palpate the **fetus under the abdominal wall**. It suffers **asphyxia and dies** shortly after rupture. The most common site of rupture is **at the uterine edge**.

Treatment of uterine rupture

Rupture must be prevented at the beginning of birth. If we detect **onset of rupture**, we immediately abort the birth with **tocolytic** and terminate the pregnancy with **caesarean section**.
In the case of a rupture , we immediately perform **laparotomy** to stop bleeding from the damaged blood vessels. If there is a large rupture going into the vagina or a bladder injury, this situation is usually dealt with by **hysterectomy**.

Links

Related articles

- Pregnancy
- Hemorrhage in obstetrics
- Hypoxia of the newborn infant
- Childbirth

References

- HÁJEK, Zdeněk – ČECH, Evžen – MARŠÁL, Karel, a kolektiv.. *Porodnictví.* 3. přepracované a doplněné vydání edition. 2014. 576 pp. ISBN 978-80-247-4529-9.