

PUERPERAL SEPSIS

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What is it?

- It is an infection of the genital tract occurring within 14 and 21 days after childbirth or abortion. The cause may be either from:
- **Endogenous Organism:** In this the causative organisms are from within the patient, the mixed flora colonising the woman's own genital tract. Usually *Streptococcus faecalis* living in the anus and in the perineum, anaerobic streptococci and *Clostridium welchi* found in the vagina are responsible for the infection.
- **Exogenous Organism:** The organism in this case comes from outside the body and are transmitted by other staff attending the patient. The source of infection can be from the midwife, doctor and other patients or visitors. Air and dust also in the environment can also cause infection to the patient

Causes of puerperal infection

Microbes that commonly cause puerperal infection include:

- Streptococci,
- Coagulase-negative staphylococci,
- Clostridium pelfringens,
- Bacteroides fragilis,
- Escherichia coli.

Most of these microbes are considered normal vaginal flora. However, they can cause puerperal infection giving the right predisposing factors like:

- Prolonged and premature rupture of the membranes
- Prolonged (more than 24 hours) or traumatic labour
- Caesarean section
- Frequent and unsanitary vaginal examinations
- Unsanitary delivery practices
- Retained products of conception
- Haemorrhage, and
- Maternal conditions like anaemia or debilitation from malnutrition.

Causes of puerperal infection

- Following childbirth the woman's genital tract has a large bare surface, which can become infected.
- Infection may be limited to the cavity and wall of her uterus, or it may spread beyond to cause peritonitis, septicaemia, and death, especially when her resistance has been lowered by a long labour or severe bleeding.
- Patient may have a pelvic abscess with pus in her pouch of Douglas, or may have pus high in her pelvis or in her lower abdomen.

Sign and symptoms of Puerperal sepsis

- **Fever of at least 38-40 C or 100.4 – 105 F occurring from 24 hrs or more postpartum, the first sign.**
- **Pulse rate is increased.**
- **Uterus is sub-involuted, tender and softer than usual.**
- **Fouls smelling Vaginal discharge (lochia) after delivery.**
- **Local pain and swelling of the infected suture line.**
- **Headache, insomnia anxiety and restlessness.**

Sign and symptoms of Puerperal sepsis

If sepsis is generalized or systemic:

- **Patient is weak with:**
- **Anorexia,**
- **Fever (with rigors),**
- **Rapid thready pulse,**
- **Low blood pressure**
- **Generalized abdominal pain.**
- **Abdomen is uniformly distended and acutely tender.**
- **Patient may have a visible mass extending up to her umbilicus which a catheter may have to be passed to make sure that it is not merely a distended bladder.**
- **Patient cannot walk.**
- **Patient may have diarrhoea until peritonitis causes ileus and consequently cause constipation and vomiting.**

Sign and symptoms of Puerperal sepsis

- In severe sepsis symptoms :
- Pelvic pain constant.
- Temperature and pulse rate very high.
- Lower abdominal pain.
- Pain is intense pain and worsens the patient's condition.
- Infection becomes severe and affects the fallopian tubules.
- Pus collects in the pouch of douglas.

Treatment for Puerperal Sepsis:

Ensuring Asepsis is the principle behind the treatment and management of puerperal sepsis. The following must be considered:

- Isolation of patient (baby should be isolated in severe infection)
- Ventilation of the room.
- Ensure adequate fluids intake.
- Ensure patient gets enough and proper rest
- Laxatives can be given to prevent constipation.
- Monitor vital signs (temperature, pulse and respiration).
- Regular bathing or sponging to reduce fever and increase comfort of the mother.
- Localized infection on the perineum should be treated with aseptic dressing.
- Change vaginal pads frequently.
- Antibiotics should be administered as prescribed.

Diagnosis

- Development of the typical clinical features described earlier, especially fever within 48 hours after delivery

Laboratory investigation:

- Culture of lochia, blood, incisional exudate from caesarean incision or episiotomy, uterine tissue, or material collected from the vagina to isolate the causative organism to confirm the diagnosis.
- Within 36 to 48 hours, white blood cell count usually demonstrates leukocytosis (15,000 to 30,000/ul).
- Other conditions to consider are pelvic abscess, deep venous thrombophlebitis, pyelonephritis, cystitis, mastitis, atelectasis, and wound infection.

Prevention on Puerperal Sepsis

- **Maintain aseptic technique when performing vaginal examination.**
- **Limit the number of vaginal examinations performed during labour.**
- **Take care to wash your hands thoroughly after each patient contact.**
- **Keep the episiotomy site clean.**
- **Screen personnel and visitors to keep persons with active infections away from maternity patients.**
- **Instruct all pregnant patients to call the health care provider immediately when their membranes rupture.**
- **Advice against intercourse after rupture or leak of the amniotic sac.**
- **Teach the patient how to maintain good perineal hygiene following delivery.**

Thank You

