**Puerperal Metritis (Acute septic metritis)**

Puerperal metritis is inflammation of the uterus which involved all layers of the uterus (endometeriom,myometeriom and serosa) and it is affect the general health of the cow and occurs within a few days of parturition. It usually follows an abnormal first or second stage of labour, especially when there has been a severe dystocia.

**Causes:**

* The disease associated with parturition problems like uterine inertia, twin births, RFM, prolonged traction and damage to the vulva and/or birth canal.
* Bacteria colonize the non-involuted uterus, producing toxins which are absorbed and cause severe symptoms.
* The most important infecting organisms are *Arcanobacterium pyogenes*, group C streptococci, haemolytic staphylococci, coliforms, and Gram-negative anaerobes, particularly *Bacteroides* spp.
* In rare cases, clostridia are present which rapidly produce disease that is serious and often fatal.

**Clinical signs:**

* Affected animals show both local and general symptoms.
* It is very common for toxemia, septicemia and pyrexia to occur.
* The temperature of affected cows may be elevated to 40–41C, but is more often subnormal.
* There is a rapid pulse rate (in the region of 100/minute) and the respirations may be sufficiently frequent to suggest a respiratory disease.
* Animals are anorexic and dehydrated; they often have a toxemia-induced diarrhea and exhibit signs of shock.
* It is common for the infection to extend through the uterine wall into the peritoneum, causing a localized or generalized peritonitis.
* The uterus contains large volume of toxic, fetid, reddish, serous exudates, containing pieces of degenerating fetal membranes; the exudates is discharged from the vagina by frequent expulsive straining efforts.
* Vaginal and uterine exploration of an affected case causes acute discomfort and is accompanied and followed by the most severe and persistent expulsive efforts.
* The cotyledons are swollen and the fetal membranes often remain firmly attached.
* The vulva and vagina are swollen and deeply congested.

**Treatment:**

* The treatment of puerperal metritis requires both good nursing care and vigorous medication.
* The cow should first be kept warm and made as comfortable as possible by, for example, transferring it to a well-bedded and warm loose-box.
* An attempt should be made to remove the fetal membranes by very gentle external traction, but no attempt should be made to enter the vagina and uterus with the hand.
* It should be appreciated that the uterus is particularly friable and that it contains a voluminous mass of septic material, therefore Rough attempts at removal of the fetal membranes or even careful exploration of the vagina and uterus can cause severe damage and predispose to the absorption of toxins and entry of bacteria.
* If the case is seen within 2–3 days of parturition, 50 i.u. of oxytocin by intravenous injection may cause contraction of the uterus and expulsion of fluid and debris.
* The disease is best treated by systemic administration of broad-spectrum antibiotics and supportive therapy. The choice of antibiotic and the route of its administration have been the subject of much debate.
* Intrauterine infusions of tetracyclines may be effective against mild cases of endometritis, but they do not penetrate far enough into the uterine wall to be effective against full-thickness metritis.
* Systemic broad spectrum antimicrobials, fluid therapy and nonsteroidal anti-inflammatory drugs are widely recommended.
* The use of estrogens is contraindicated in cases of acute puerperal metritis since(why) , although they potentially increase the resistance of the genital system, oestrogens also increase the blood flow to the uterus and, thereby, increase the absorption of bacterial toxins.
* Once the temperature approaches normal and the cow shows some signs of improvement, some benefit can be obtained by uterine lavage and drainage. This can be done with a wide-diameter, soft rubber tube. The perforated end is carefully inserted through the cervix into the uterine lumen and several liters of warm (49 C) sterile saline are poured down the tube through the funnel. The funnel end is quickly lowered before the tube empties, thus establishing a siphon, until the uterus is as empty as possible.
* The warm saline solution is believed to exert both a soothing and a stimulating effect on the uterus, and this, together with the evacuation of exudates, promotes involution.
* Ideally, the patient should be given daily treatment as outlined above.