FEMALE GENITAL TRACT DISORDERS

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Introduction

- The most common female genital tract disorders in a farm are mastitis, retained placenta and vaginal wound and laceration.
- In this presentation we will talk mainly about mastitis, because this disease interfere with animal and human health and causes significant economic losses to the dairy industry.

MASTITIS

What's Mastitis.

Mastitis simply means inflammation of the udder.

Clinical calcifications of mastitis

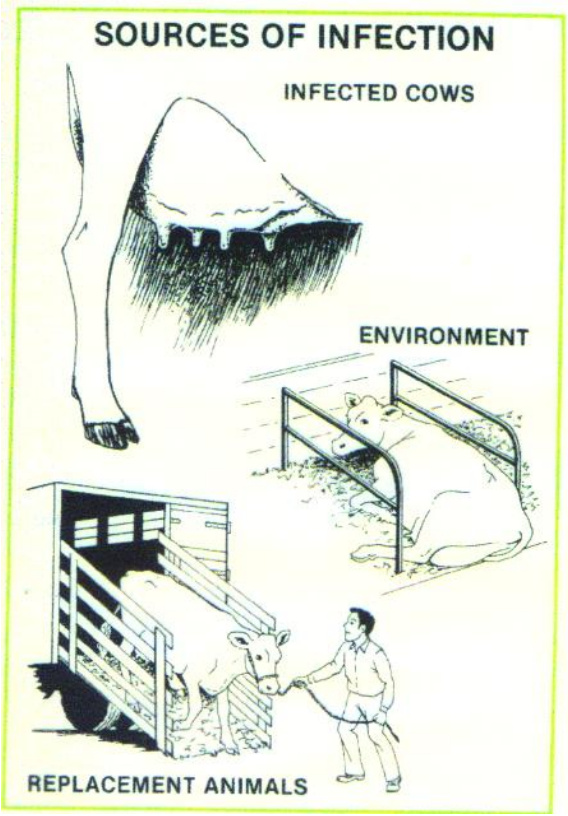
- **Clinical** – changes in milk and/or udder, almost always due to bacteria entering the udder through the teat canal.
  - **Acute** – sudden onset – redness, swelling, heat, pain and decreased function.

  Can result in a sick cow as bacteria and toxins cross into bloodstream
  - **Chronic** – progressive development of fibrous tissue ± abscessation – can remain clinical or progress to subclinical.

- **Subclinical** –is the presence of an infection without apparent signs of local inflammation or systemic involvement.

Source of infection

- Infected animal
- Environment
  - Soil
  - Manure
  - Water
  - Bedding
- Replacement animal



causes

Bacterial:

Contagious Bacteria:

- *Staphylococcus aureus*
- *Streptococcus agalactiae*
- *Coagulase-negative staphylococci*
- *Streptococcus dysgalactiae*
- *Mycoplasma*

Environmental Bacteria:

- *Streptococcus uberis*

CONT.

- Coliforms Bacteria:
  - *E. coli*
  - *Citrobacter*
  - *Enterobacter*
  - *Klebsiella*
- Yeasts
- Fungi
- Traumatic

Specific type of mastitis

- Gangrenous mastitis

- Mastitis caused by *Staph. Aureus* .
- Up to 80% die
- Udder is initially red and hot then turns blue and cold

- Milk is watery, brown
- May slough ½ of udder

How is mastitis diagnosed ?

- Physical examination
  - Signs of inflammation
  - Empty udder
  - Differences in firmness
  - Unbalanced quarters

- Cow side tests
  - California Mastitis test

Cont.

- **Culture analysis:**

  - The most reliable and accurate method.

TREATMENT

ANTIBIOTIC:

Selected depend on culture analysis.

- **INJECTION**

Penicillins, Aminoglycosides, Cephalosporins, Tetracyclines

- **INTRAMAMARY**

TREATMENT

- The spectrum of action of common antibiotics, that can use in treatment of mastitis

Antibiotic	Gram-positive bacteria[a]	Beta-lactamase Gram-positive bacteria[a,b]	Gram-negative bacteria[c]	Fastidious Gram-negative bacteria[d]
Penicillin	+	−	−	+
Penethamate	+	−	−	+
Cloxacillin	+	+	−	+
Amoxycillin	+	−	+	+
Amoxycillin + clavulanic acid	+	+	+	+
Streptomycin	−	−	+	+
Erythromycin	+	+	−	+
Cephalosporins (3rd generation +)[e]	+	+	+	+
Tetracyclines	+	+	+	+
Tylosin	+	+	−	+

[a]Gram-positive bacteria include staphylococci, streptococci, *Bacillus* species.
[b]Beta-lactamase producers include *Staphylococcus aureus*.
[c]Gram-negative bacteria include *E. coli*, *Pseudomonas*, *Klebsiella*.
[d]Fastidious Gram-negative bacteria include *Pasteurella*, *Moraxella*, *Bordetella*, *Actinobacillus*.
[e]Cephalosporins include cephoperazone and cefquinome. Third- and fourth-generation cephalosporins have a greater effect against coliforms.

TREATMENT

- **Supportive Therapy**

1. **Fluid therapy :**
   Use in coliform and gangrenous staphylococcal mastitis.
2. **Anti-inflammatory drugs:**
   flunixin ,cortisone .
3. **Topical preparations:**
   Products such as Cai-Pan peppermint oil.

Mastitis Control

- Treating and recording all clinical cases.
- Separation of the mastitic animal.
- Culling chronic mastitis cases.
- Dry cow therapy at the end of lactation.
- Dipping teats in disinfectant after every milking.
- Regular milking machine maintenance.

Cont.

- Keep cows clean, udders free from soil and manure.
- Properly feed and care for cows.
- Regular cleaning or changing of bedding.
- removing udder hair, preventing teat trauma.
- Educate and train milker in implementing the standardized milking procedure.

Summary

- Mastitis is primarily a management problem
- Mastitis can be controlled
- Prevention programs work best when correctly followed

Vaginal wound and laceration

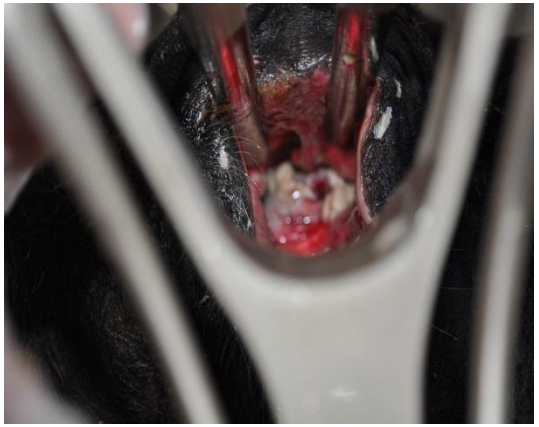
Cause

- Calving difficulties, rough handling of the calf and maternal tissues and careless use of obstetrical instruments by the operators during delivery of the calf.

- Injuries occur more often in cows that have been in labor for several hours and when the birth canal is dry and non lubricated.

Treatment

- Washing laceration wounds with antiseptic.
- Systemic broad spectrum of antibiotic.
  - Penicillin, oxytetracycline.
- Anti-inflammatory drugs:
  - Flunixin meglumine



Prevention and control

- gentile handling of the calf and maternal tissues.
- careful use of obstetrical instruments.
- Use lubricant oil during calving.

Retained Placenta :

- Definition:

- In cattle the fetal membrane are expelled within 12h after parturition.

- Retention of the placenta for longer period must be considered pathological.

Cont.

- Etiology:
  - It is basically due to failure of the villi of the fetal cotyledon to detach themselves from the maternal crypts of the caruncle.

- Basic Causes:

1. Immature Placentomes.
2. In non-infectious abortion and premature birth.
3. Edema of the chorionic villi.
4. Following cesarean section and uterine torsion.
5. Necrotic areas between chorionic villi and the cryptal wall
6. Hyperemia of the placentomes.
7. Placentitis and cotyledonitis.

Treatment:

- Manual treatment :

- One day after parturition under aseptic condition without injury to the maternal caruncle. The trial should not exceed 10 minutes/day.
- The veterinarian twist the post cervical part into a bulky rope, which he hold in one hand at the vulva.
- With the other hand he gently follows the rope through the cervix to the cotyledonary attachment of the uterus.

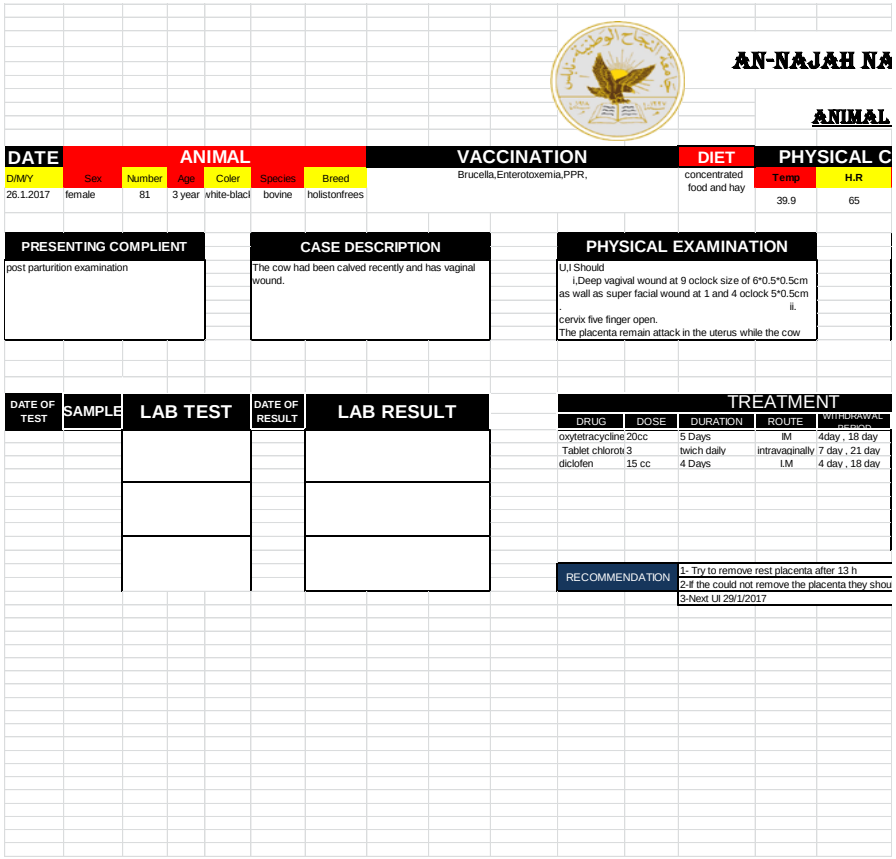
Cont.

- He squeezes gently the base of the maternal caruncle so as to open the crypts on its convexity, the thumb is lightly passed over the periphery of the caruncle in order complete the separation of the released villi.
- Succeeding cotyledons are approached in a circumferential order.
- Continuous steady traction and rotational force are applied with the

  other hand.

cont.

- Therapeutic treatment without manual removal:
  - Oxytocin: 20–50 I.U., within 24h after birth
  - Estrogenic substances: 5–20 mg stilboesterol
  - Broad acting antibiotic: Tetracycline, terramycine



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ANIMAL

DATE	ANIMAL						VACCINATION	DIET	PHYSICAL C	
D/M/Y	Sex	Number	Age	Coler	Species	Breed			Temp	H.R
26.1.2017	female	81	3 year	white-blacl	bovine	holistonfrees	Brucella,Enterotoxemia,PPR,	concentrated food and hay	39.9	65

PRESENTING COMPLIENT	CASE DESCRIPTION	PHYSICAL EXAMINATION
post parturition examination	The cow had been calved recently and has vaginal wound.	U.I Should i,Deep vagival wound at 9 oclock size of 6*0.5*0.5cm as wall as super facial wound at 1 and 4 oclock 5*0.5cm ii. cervix five finger open. The placenta remain attack in the uterus while the cow

DATE OF TEST	SAMPLE	LAB TEST	DATE OF RESULT	LAB RESULT

TREATMENT

DRUG	DOSE	DURATION	ROUTE	WITHDRAWAL PERIOD
oxytetracycline	20cc	5 Days	IM	4day , 18 day
Tablet chloroti	3	twich daily	intravaginally	7 day , 21 day
diclofen	15 cc	4 Days	I.M	4 day , 18 day

RECOMMENDATION	1- Try to remove rest placenta after 13 h
	2-If the could not remove the placenta they shou
	3-Next UI 29/1/2017

THANK YOU FOR YOUR ATTENTION