



ENDOMETRITIS

DR. S. SATHESH KUMAR,

M.V.Sc., Ph.D., PGDEVP.,

Professor and Head

Department of Veterinary Gynaecology and Obstetrics,
Veterinary College and Research Institute

Tamil Nadu Veterinary and Animal Sciences University

Orathanadu – 614 625, Thanjavur Dt.

Email: drsatheshkumar6@rediffmail.com

LESSON V

- *Prevention of endometritis*

PREVENTION OF UTERINE INFECTIONS

- Cows with clinical endometritis were 1.7 times more likely to be culled for reproductive failure than cows without endometritis.

(LeBlanc *et al.*, 2002)

- Good management practices in the pre-and postpartum period can minimize or even avoid cow uterine infections and prevent the prevalence of endometritis disease.



TRANSITION COW

Major risk factors are

- Hygiene : Animal and environment
- Immune status of the animal
- Nutrition and metabolic status

HYGIENIC ENVIRONMENT

- **Paying attention to the hygiene of cattle accommodation and calving facilities will pay dividends in terms of cleaner surfaces and less contamination for animals.**



IMMUNO MODULATION

- The understanding of uterine microbiome have created opportunities for the development of novel preventive measures to improve the management of uterine diseases.
- Avoidance of endometritis depends on how effective the integrated process of adaptive events like well-regulated immune response is at limiting the burden and effects of bacterial pathogens.

(Pascottini and Le Blanc, 2020)

- **Animals defend themselves against pathogens using tolerance and resistance mechanisms.**
 - > Tolerance:** Ability to limit the disease severity induced by a given pathogen burden.
 - > Resistance:** Ability to limit the pathogen burden through development of immunity.

Metabolic stress associated with transition and lactation compromises both tolerance and immunity

•Negative energy balance favours the development of metabolic disorders

> hypocalcemia

> ketosis

> high non esterified fatty acids and triacyl-glycerol

which can increase the risk factors for endometritis by 10 folds.

NUTRITION OF TRANSITION COW

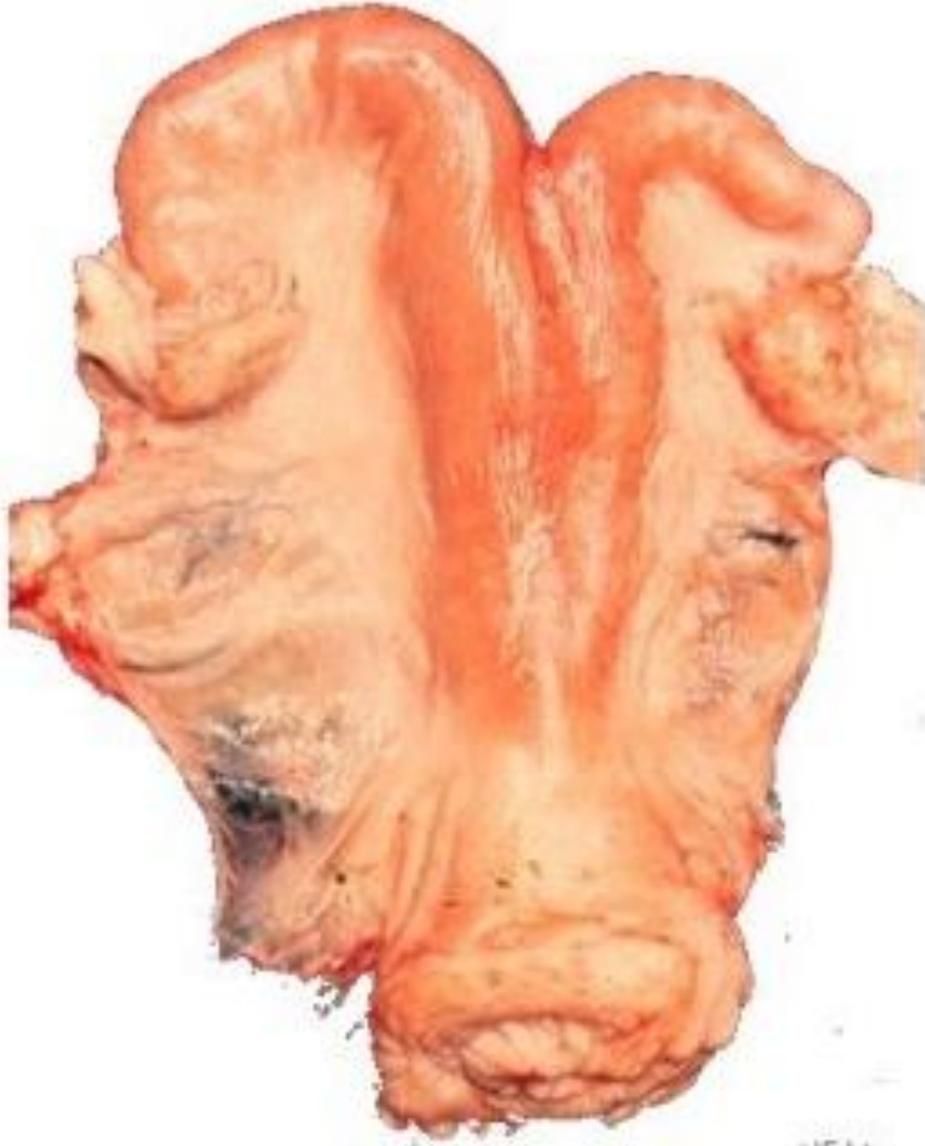
- **Poor nutritional management of dairy cows during the transition period leads to metabolic disorders**
- **Deficiencies of micronutrients such as selenium and Vitamin E can suppress immunity.**
- **Formulation of the appropriate diet during the transition and lactation period is important for reducing the incidence of metabolic disorders.**



HANDLING OF PARTURIENT DISORDERS

Uterus is bestowed with powerful systems of natural repair and recovery, provided it is undisturbed.

(Chandraprasad and Moulikrishna, 2009)



HANDLING OF PARTURIENT DISORDERS



Unnecessary manipulations either per vaginum or per rectum and indiscriminate dosing of drugs should be discouraged to facilitate the uterus to experience natural process of repair and recovery leading to better *post partum* reproductive functions.

(Moulikrishna, 2009)



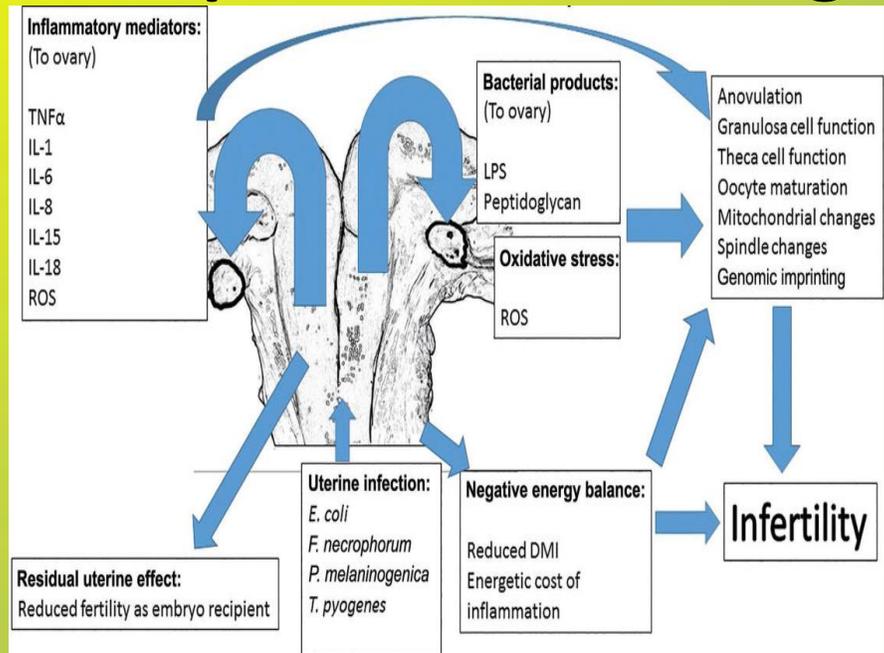
The best current advice for prevention of uterine infection is

- To provide better environment**
- To optimize animal nutrition and management and**
- To handle parturient disorders judiciously**

in order to increase the tolerance of parturient and postpartum animals, so that they are better able to limit the impact of uterine pathogens without developing uterine disease.

CONCLUSION

Proper understanding about endometritis like



- Degrees of affection
- Causative factors
- Effect on fertility
- Selection of appropriate therapy and
- Adopting preventive measures

will reduce its incidence and ensure improved fertility among the dairy cattle.

SUMMARY

- **Careful handling of uterine environment and judicious usage of anti-microbials aid in proper management of endometritis condition in cattle**

CVE – AGMOOCS - TANUVAS



Thank you !!