



## Threat of Trichomoniasis at Farm

**Muhammad Tayyeb\***

Department of parasitology, University of Agriculture Faisalabad, Faisalabad

**\*Corresponding Author:** Muhammad Tayyeb, Department of parasitology, University of Agriculture Faisalabad, Faisalabad.

**Received:** January 07, 2022

**Published:** July 13, 2022

© All rights are reserved by **Muhammad Tayyeb.**

Protozoa inhabiting in the digestive tract of animals as a commensal but in clinical cases certain protozoa causes economic losses, infected animals' shows dullness, lethargic, pyrexia, Anorexic and mortality in naturally infected cases is low but morbidity is comparatively high. Trichomoniasis is sexually transmitted protozoan disease caused by *T. foetus* and *T. vaginalis*.

In 1836, scientist Donne firstly, investigated this widespread parasite in unstained wet mount by the preparation of vaginal discharge mixed with saline. In 1883, there was another researcher name *kunkle* highlighted the behavior of female urinary tract's parasite. *Trichomonas tenax* was first identified Trichomonas in 1773 by Miller, who found this parasite in dental calculus. The pathogenesis caused by *T. tenax* are gingivitis and inflammation in oral cavity.

*T. vaginalis* was the parasite described by Donne in 1836. This can be analyzed in the genital secretion of men and women. After the development of culture media, this parasite was studied in detail. Trichomoniasis is notorious to cause certain issues in livestock such as abortion, metritis, vaginitis and pyometra and infertility in bulls and also have public health significance. This could be lethal as it could cause to compromise the immunity of animals. so, there chances of secondary bacterial infections. There are total 17 types of *Trichomonas* out of 12 million cattle there are 40 to 60% chances of *Trichomoniasis* in cattle. Its prevalence depends on repeated use of old bulls for breeding purposes and unsterilized equipment being used for gynecological examination.

Productivity is decreased by STD by inducing the reproductive losses, conception is reduced up-to 50%, reduced in calf crops,

increased DIM, enhanced calving interval, and increased cost of replacement of bulls, increased culling rates, decrease in weaning weights. Consequently, Bovine *Trichomoniasis* causing the delay in breeding season, 5-12% decline in weight gain, 4-10% reduction in weaning weight, 4-10% reduction in monetary returns per calf born, 14-50% decline in overall calf crops annually, and 5-35% decline in financial returns per cow as compared to exposed a healthy fertile bull.

*T. foetus* is responsible for bovine Trichomoniasis in cattle. *T. vaginalis* is a pear-shaped organism having four anterior whip like flagellate and one flagella at rear end attached with undulating membrane. This is also having axo-style that could be possible reason of irritation in trichomonas affected organisms. In 1990, *Mazzanti* and *Kunstler* in 1888, both of these scientists reported that *Trichomonas foetus* was investigated and isolated from the bovine vagina and intestine of swine respectively. The name of *T. foetus* was given by *Riedmüller* to this parasite causing the infection in cattle all over the world after 28 years. *Trichomonas foetus* was finally named to this parasite on the basis of morphology by *Wenrich* and *Emmerson*.

Scraping, Preputial Lavage and Sponge Sampling.

- Scraping is antique method for Collection of Smegma. For, the Collection of smegma, penile and Preputial mucosa is vigorously rubbed with the help of insemination pipette connected with Bulb via Silicon rubber tube to Create negative pressure.

- The collected material is shifted to PBS.
- Preputial flushing is another kind of Method. For this, a plastic tube of having 50ml PBS is instilled into Prepuce, massaged and suctioned back. this Technique is not too good (Gregory, *et al.* 1990).
- For the sponge Method, Bull is restrained and penis is extended by the massage on Preputial cavity. Swabbing with sponge on the Glans Penis and swabbing down the penile shaft and Prepuce.
- Vaginal secretion or washing it with PBS. These are Collected.
- In case of abortion, Placenta and foetal fluid is Collected.
- The 5 ml blood sample will be collected from the jugular vein and coccygeal vein and transferred to anticoagulant containing vacutainers. These vacutainers will be labeled properly with details of the farm and stored at 4°C for transport.

### Prevention

- Avoid the free natural mating of bulls.
- Avoid the free sex.
- Avoid the free contact with the secretion of infected ones.