Why should we care about animal NTDs?

Dirk Werling
Theileria lifecycle

However, there are also ovine and equine theileriosis
Impact of Theileria infection on the animals
Treatment strategies

- Acaricides: similar to other treatment strategies increasing resistance and technical problems with appropriate deliveries
- Infection-and-treatment method: requires LN2, requires expanive treatment (Buparvaquone)
- **Vaccination**: not existing as yet! currently work currently funded through Bill-and-Melinda Gates, DIFID, GalvMed (total $18Mio); Scientist from 3 continents and 9 institutions involved
Impact of Theileria infection on animal

- Altered feed intake

- Altered feed digestibility

Metabolism

- Altered nutrient utilization
  - Protein
  - Energy
  - Minerals and other nutrients

- Altered respiratory efficiency

- Body material excreted in feces and urine to abnormal extent

Consequential production effects in affected animals

- Premature death
- Changed value of animals
- Reduced body weight
- Reduced yield and/or quality of milk, eggs, wool, etc.
- Reduced capacity for work
- Altered production of dung (used for fuel)

Economic effects

- Body material diverted for use of disease agent

Herd production effects

- Reduced productive life of animals
- Reduced fertility and fecundity

- Lower precision in recognition of animals of superior genetic merit

- Altered replacement pattern and reduced capacity for genetic improvement

Effects on herd maintenance and improvement

- Available feed not fully utilized by animals - consumed by decomposers
- Nutritive value of feed not fully used, remainder excreted
- Consumed by decomposers or used for fuel
- Increased yield of disease agent

RVC
More importantly: Why should we care about these diseases for humans?
But there is more:

> See more at:
http://allafrica.com/view/photoessay/post/post/id/201402040001.html#1

> Theileriosis is a good research model for:

  • Human adult leukemia forms
  • Malaria
Thanks for listening!