Infection of a dairy herd by *Mycoplasma wenyonii*: 1\textsuperscript{st} description in France

E. COLLIN
Pôle vétérinaire du Gouët au Lié,
22150 PLOEUC sur Lié, FRANCE
Introduction
Summary

- Case history
- Chronology of the events
- Clinical signs detected
- Diagnostic investigation
- *Mycoplasma wenyonni*
  1. Epidemiology
  2. Pathogeny
  3. Clinique
- Biology
- Evolution
- Reflexions and conclusion
Case history

- Herd of 50 dairy cows (9,000 kgs of milk/cow/year)
- Semi grove landscape
- No pathological history
- Good general hygiene and correct biosecurity on the farm
- Neighbours
Chronology of the events

- November 2014
- 1st phase: 4 animals
- 2nd phase: 15 animals
Clinical description

- General signs
  1. Loss of production (50-80%)
  2. Hyperthermia (40.5°C-41°C) (n=14/15)
  3. Tachypnoea

- Closer exam
  1. Pale mucosa
  2. Oedema of the teats (n=14/15)
  3. Oedema of the hock (n=10/15)
  4. Rigidity upon movement (n=10/15)
Diagnostic investigation

- **D1**: one single animal, beginning of an infection?
  Treatment: sulfamides and NSAID

- **D3, 4 and 5**: evolution of cow n°1 not positive, new cases
  Treatment: OTC

- Before any treatment, a PS EDTA is done on the animals newly affected.
Hematology-Biochemistry

- Blood smears: 3/5 positive
- During the febrile phase before the anemia
- Multiply the samples

Picture Paul Phipps x40

Picture Eric Collin x100
Hematology-Biochemistry

- **Anemia**: $\text{Hb} = 92 \text{ g/l}$  
  $n=5$ sick
- **RBC**: $=5.32 \times 10^{12}/l$
- **Biochemistry**

Picture Eric Collin x100
Mycoplasma wenyonii

- Hemotropic mycoplasma (ex Rickettsia)
- Geographical repartition
- Source of the infection: reservoir: chronically infected animals
- Transmission: vector’s bites and practices that allow the injection of infected blood
- Subclinical and clinical infection
Clinical evolution

- 19 animals affected over the two phases
- Positive general evolution
- Milk production comes back to a level slightly inferior to the original level
- Old animals are more affected
- No impact on the somatic cell counts
Reflexions

- Are there other outbreaks?
  1. 2013 in the same town
  2. 2014-2015 in the same area

- How is introduced the disease?
  1. Infected animals newly introduced
  2. Decrease of the immunity of an infected herd
  3. Vector-borne introduction

- Exposition of the herds to vector-borne diseases
Complementary investigations

- Epidemiological approach: blood tests
- Impact on reproduction
- Entomological study
- Evaluation of the immunity within a herd
Thank you for your attention!

Northern Brittany oct 2014