

# EPIDEMY OF BOVINE CUTANEOUS AND UTERINE BOTRYOMYCOSIS AFTER CESAREAN SECTIONS

Arnaud SARTELET

A.-S. Rao, B. Pirard, C. Bayrou, D. Cassart,  
J.-N. Duprez, J. Mainil, F. Rollin

XV<sup>th</sup> MEBC & 10<sup>th</sup> ECBHM Symposium  
10-13<sup>th</sup> june, 2015 – Maribor, Slovenia







# C-Sections in BBCB

☐ 99 % of calvings



☐ Principal complications

- Peritonitis
- Adhesions
- Wound infections







# Wound complications

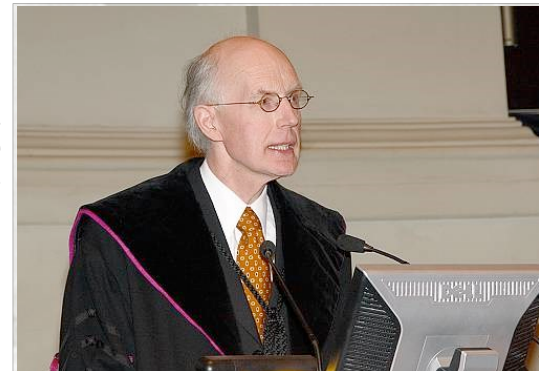
- ☐ Dehiscence
- ☐ Abscess
- ☐ Hematoma
- ☐

## Actinobacillosis in bovine caesarean sections

A. de Kruif, P. Mijten, F. Haesebrouck, J. Hoorens, L. Devriese

*Veterinary Record* (1992) **131**, 414-415

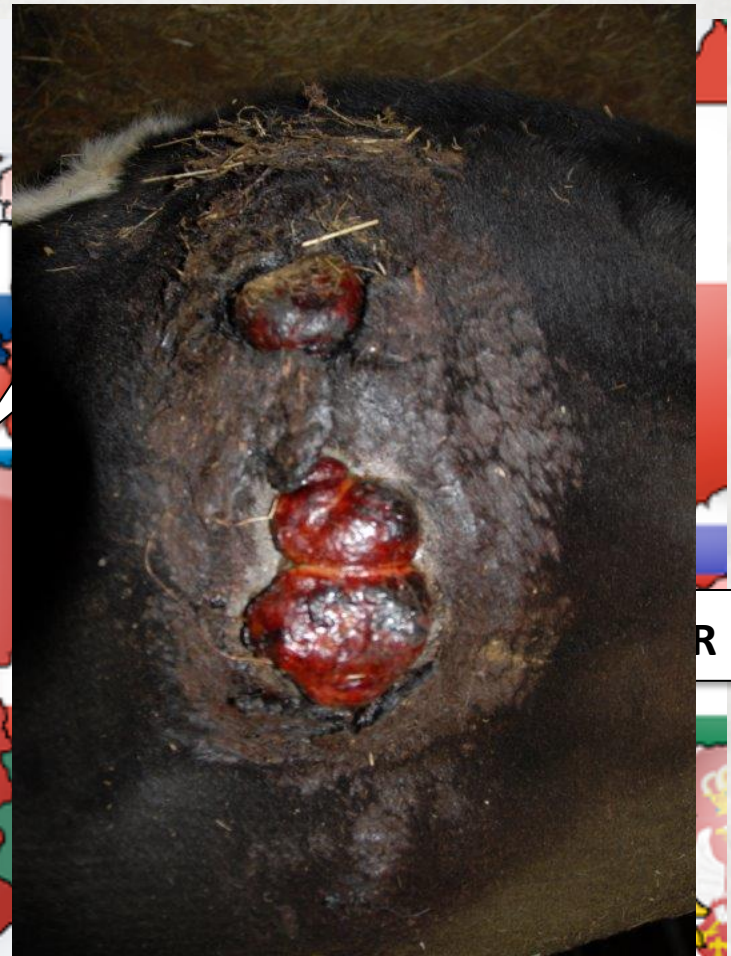
An infection with *Actinobacillus lignieresii*, which was spread by a veterinary surgeon, caused problems after caesarean sections in cows on several farms. The wounds became hard about six weeks after the operation, and a few weeks later small abscesses developed and later the wounds were covered with small and large granulomas. The general health of about 20 per cent of the affected cows was poor and in these cows multiple granulomas could be detected in the abdomen by rectal palpation.





# History

□ December 2014







# Investigations



- ☐ About 6 weeks after C-section
- ☐ Between Aug, 2014 & Jan, 2015
- ☐ 13 herds : health status, housing, breeding, ...
- ☐ C-section technic and material used
  - No major errors & no immediate complications
  - REUSABLE
  - NO STERILIZATION







# Clinical examination



- 318 cows (13 herds)
  - 90 (28 %) parietal granulomatous lesions
  - BC not affected



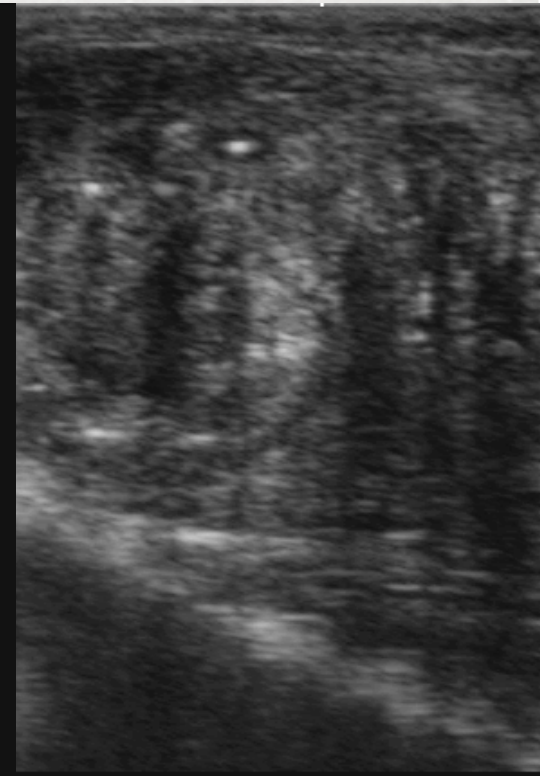
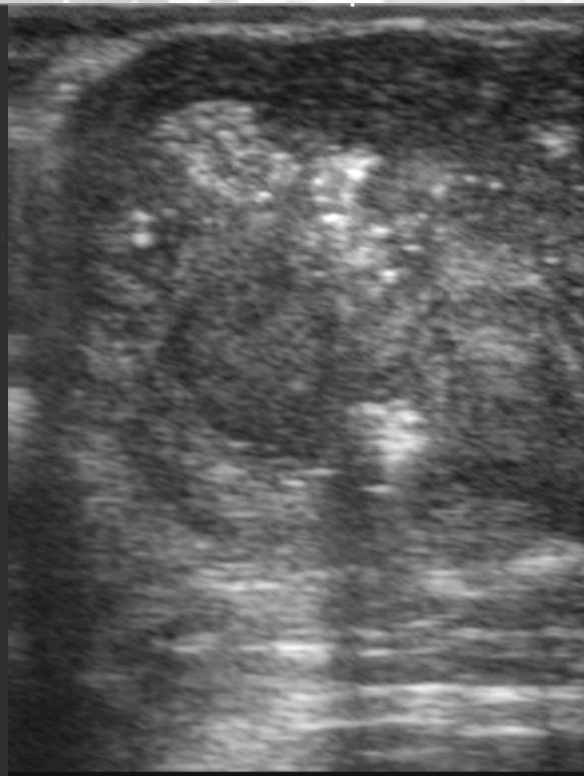
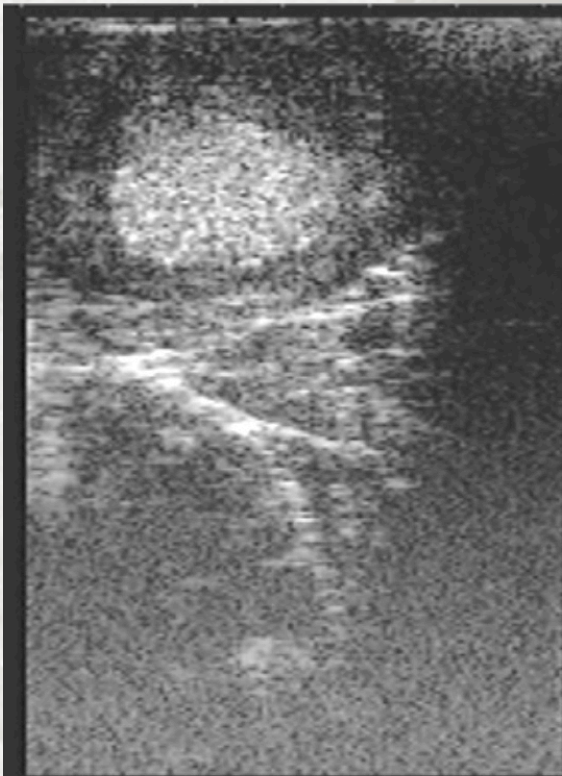




# Clinical examination



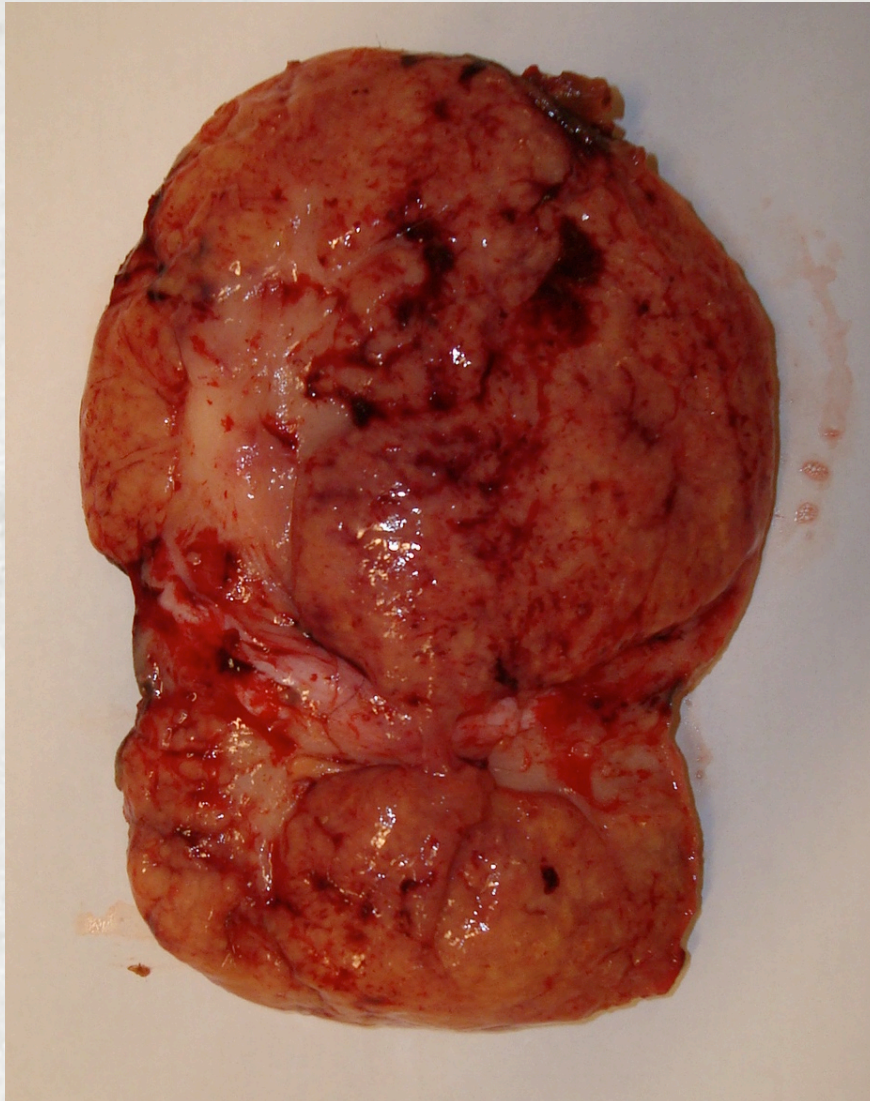
- ☐ Repeat breeding (shorter cycles)
- ☐ Uterine granuloma
  - 39 (12 %): C-section horn (RP & US)







# Anatomopathological examinations (biopsy)







# Anatomopathological examination







# Bacteriological analysis

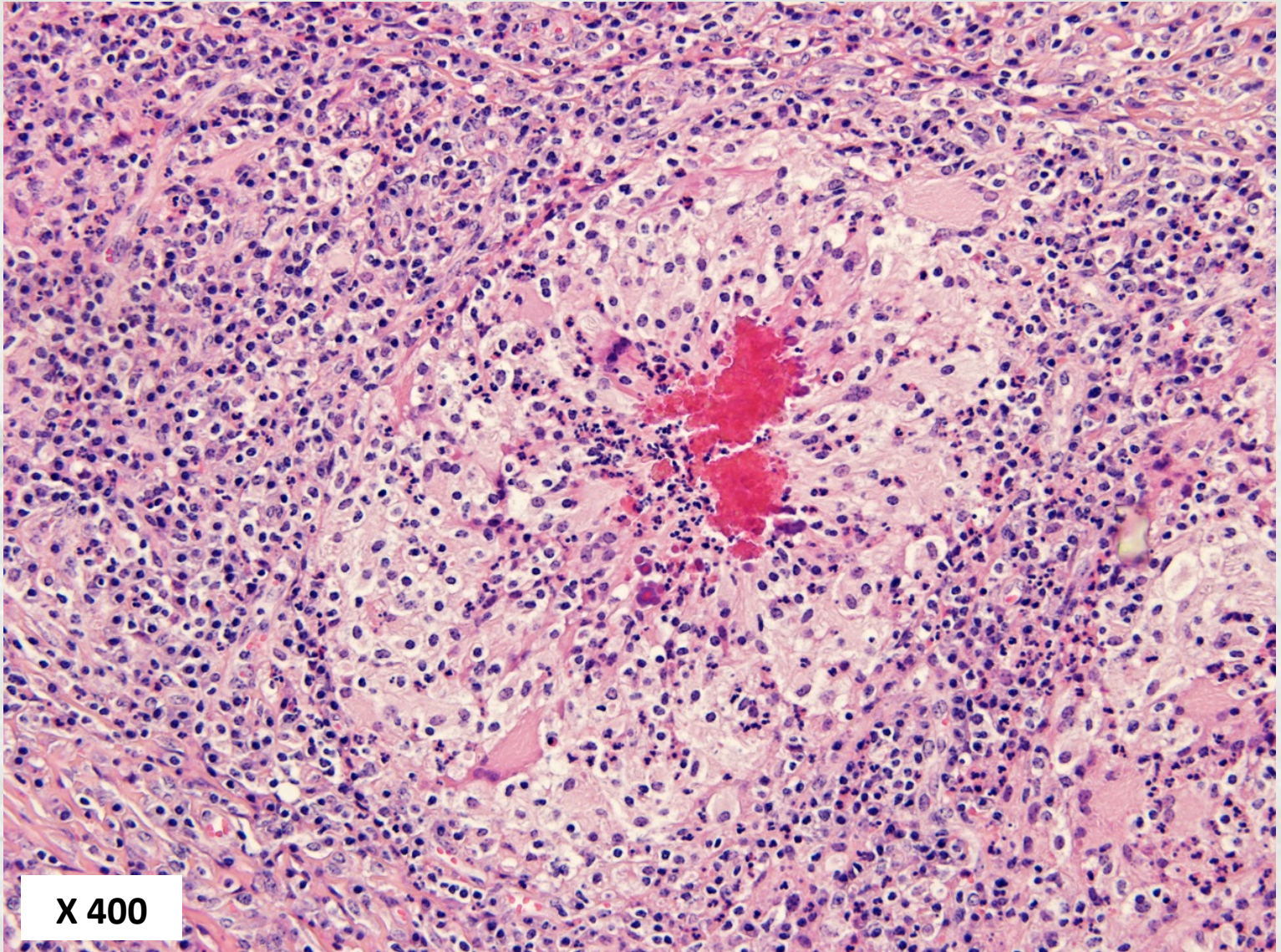


	WOUND BIOPSIES						UTERINE BIOPSY
	#1	#2	#3	#4	#5	#6	
Direct examination (Actinobacillus, Actinomyces)	NEG	NEG	NEG	NEG	NEG	-	NEG
Gram	RBC +++	RBC +++	RBC +++	RBC +++ WBC ++	G- bacillus G+ bacillus	-	NEG
Aerobic	<i>B. licheniformis</i>	<i>P. aeruginosa</i>	<i>S. chromogenes</i> <i>E. coli</i>	<i>P. aeruginosa</i>	<i>P. aeruginosa</i>	<i>Aeromonas</i> <i>sp.</i>	<i>P. aeruginosa</i>
Anaerobic	NEG	NEG	NEG	NEG	<i>C. perfringens</i> <i>F. necrophorum</i>	NEG	NEG
Mycosis	NEG	NEG	NEG	NEG	NEG	NEG	NEG
Mycoplasma	NEG	NEG	NEG	NEG	NEG	NEG	NEG





# Histopathological examination



X 400







# At the end...

- ❑ Compatible with Botryomycosis
  - chronic granulomatous infectious
  - not well understood
  - associated with low virulence pathogens, immune deficiency, surgery....
  - histological as diagnosis
- ❑ Origin remains unknown
  - C-section as a predisposing factor
  - Improvement of biosecurity (disposable)





# THANK YOU!

