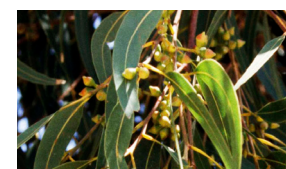


Phytogenic uterus instillation in horses

A high potential to replace routine antibiotic uterus flush after artificial insemination

Artificial insemination (AI) is conducted in more than half of modern sport breeding mares in several European countries today. AI is still of rising importance. Several factors including bacterial infection can cause a persistent breeding-induced endometritis [1]. Antibiotic uterus flush (ABUF) is a common post-insemination routine to avoid this important disease complex [1].

In order to find a suitable alternative, the Equine National Center of Berne, one of the largest Swiss centers for AI in horses changed the routine 2012 from ABUF to an uterus instillation with a registered veterinary drug solely based on plant extracts from *Eucalyptus globulus* Labill., *Melissa officinalis* L., *Calendula officinalis* L. and *Origanum majorana* L. (PEUI; EucaComp® PlantaVet).



Eucalyptus globulus Labill.



Calendula officinalis L.



Melissa officinalis L.



Origanum majorana L.

Methods

In total 1389 AI and 624 early pregnancy diagnoses (ePD) were recorded from 2010 to 2014. Additionally the post-insemination treatment such as ABUF (N = 517), PEUI (N = 538) or no treatment (N = 334) were taken into account. In the data analysis with SAS 9.3 a chi-square test was used to compare the frequency distributions of the different treatments between the studied years. The level of significance was defined as $p < 0.05$.

Results

The percentage of positive from all ePD remained stable around 50 % without significant differences between the years. The post-insemination ABUF decreased significantly from more than 70 % (2010 and 2011) to less than 10 % (2012–2014) (figure 1), while the number of therapeutic antibiotic uterus flushes given independent from AI remained stable (2010: 50, 2011: 30, 2012: 9, 2013: 27, 2014: 10).

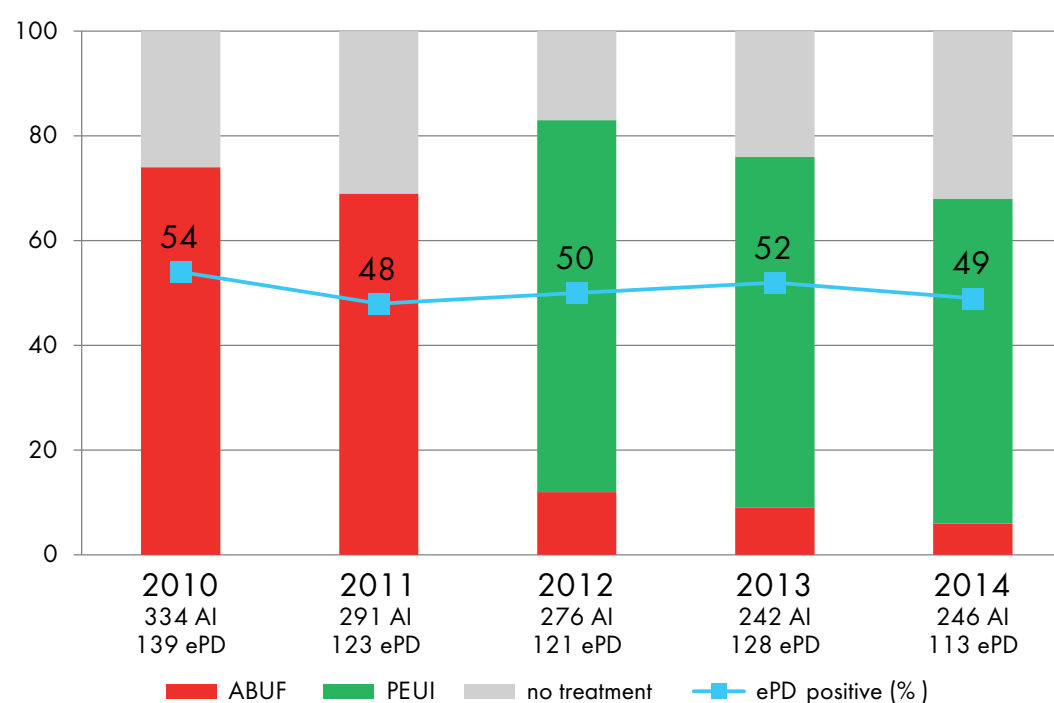


Figure 1: Development of the outcome of early pregnancy diagnoses (ePD) after artificial insemination (AI) in mares in one of the largest Swiss centres for AI during a change in post-insemination treatment routine from antibiotic uterus flush (ABUF) to an uterus instillation with a registered veterinary drug solely based on plant extracts (PEUI)

Conclusion

Well-known antimicrobial, anti-inflammatory and immunomodulatory effects of the medicinal plants used in PEUI show a potential to recover the uterus before the

conceptus reaches it. Even if the meaningfulness of post AI treatment in horses is controversial discussed [1], PEUI might be an interesting alternative to ABUF.

Acknowledgements

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References

[1] Woodward, E.M. and Troedsson, M.H., 2013: Equine Breeding-Induced Endometritis: A Review; Journal of Equine Veterinary Science 33; 673-682.

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