

Press release STUDY HIGHLIGHTS No. 5/2023

Homeopathy reduces diarrhoea in piglets by 6 times

Berlin, 28 Apr 2023 – Homeopathy works beyond the placebo effect – numerous high-quality scientific studies demonstrate this. In our “Study Highlights series” we present examples of research which show the effectiveness of homeopathy beyond the placebo effect.

In this fifth issue we describe a study from 2010 which compares the effect of a homeopathic remedy against a placebo in neonatal piglets to prevent diarrhoea caused by *Escherichia coli* (*E. coli*)¹.

Topic and lead author

”Homeopathy as replacement to antibiotics in preventing *E. coli* diarrhoea in piglets” by Dr Irene Camerlink, Biological Farming Systems Group, Wageningen University & Research, Wageningen, The Netherlands²

What is the study about and the added value of homeopathic treatment?

Diarrhoea caused by *E. coli* in neonatal piglets is one of the most common swine diseases, leading to weight loss and increased piglet mortality. It is conventionally treated by antibiotics administered to affected piglets. However, the increasing use of antibiotics in agriculture is a worldwide problem. In addition to possible negative consequences for human health, animal health and the environment, the use of antibiotics in agriculture is a major contributing factor to the problem of antimicrobial resistance, i.e. bacteria becoming resistant to antibiotic treatment. To tackle this problem, antibiotics in the livestock sector are increasingly being replaced by complementary medicines such as homeopathy.

The present study investigates the prevention of *Escherichia coli* diarrhoea in newborn piglets by a homeopathic *Coli* 30K nosode³.

¹ *Escherichia coli* also called *E. coli* is a germ naturally occurring in the intestines of birds and warm-blooded mammals. It is also a component of the intestinal flora of humans. Certain strains of *Escherichia coli* can cause serious diseases in animals and humans. A common symptom is diarrhoea.

² From 2009 until 2014. Nowadays I. Camerlink is working in the Institute of Genetics and Animal Biotechnology, Department of Animal Behaviour and Welfare, Polish Academy of Sciences.

³ Nosodes are homeopathic preparations which are derived from pathogens (bacteria, viruses, etc.) or infected tissue or body liquids (e.g. blood, pus, secretions, etc.). The *Coli* 30K nosode is prepared from various strains of *E. coli*. 30K is a commonly used Korsakov potency.

How was the study conducted?

- The study was performed on a commercial pig farm with approximately 300 sows.
- Four groups with a total of 52 healthy sows, which had never received an *E. coli* vaccination, were included. They were randomly assigned to receive either the homeopathic treatment with *E. coli* 30K (n=26) or placebo (n=26).
- Treatment was administered to each sow twice a week during the last four weeks of gestation. Data from 260 piglets from the homeopathic group and 265 from the placebo group were analysed.
- The following observations were performed by blinded⁴ assessors:
 - Body condition score of the sows during treatment phase
 - Faecal consistency of the piglets daily during one week after birth

What are the scientific results?

- At time of birth (baseline), there were no differences between the groups receiving homeopathy or placebo: The birth parity numbers and the body condition scores of the sows as well as the number of piglets born and that of piglets with diarrhoea were comparable.
- During the observation period, 73 piglets suffered from *E. coli* diarrhoea: 10 in the homeopathy group and 63 in the placebo group. This corresponded to 3.8% of the piglets in the homeopathy group (n=260) and 23.8% in the placebo group (n=265). This six-fold difference was highly statistically significant ($p < 0.0001$).
- Average duration of diarrhoea tended to be shorter in the homeopathy group than in the placebo group (1.3 days vs 1.86, $p = 0.1552$).
- In the homeopathy group only 29.1% of the litters (7 of 24) showed diarrhoea, compared to 61.5% of the litters (16 of 26) in the placebo group. Within the infected litters, only about 10% of the piglets in the homeopathy group were affected, whereas at least 20% in the placebo group suffered from diarrhoea.

Why are the results of this study important?

Neonatal diarrhoea is a widespread disease in piglets, which can lead to weight loss and even death. Conventionally, it is treated with antibiotics, contributing to the global problem of antimicrobial resistance.

In light of this global concern, the current results are very encouraging showing that piglets from sows treated homeopatically at the end of their gestation have significantly less *E. coli* diarrhoea than those from sows that received placebo. In addition, there is less disease transmission within the homeopathically treated litters and shorter duration of the diarrhoea. Further, the administration of the homeopathic treatment is neither time-consuming nor complicated and can easily be done by the farmer, consequently reducing costs.

These benefits indicate that the homeopathic treatment with *Coli* 30K can be an interesting alternative to antibiotics in preventing *E.coli* diarrhoea in piglets.

What does this study add to the scientific evidence?

This study is a 'triple-blind' randomised, placebo-controlled clinical trial i.e. the farmers administering and observing the treatment, the animals receiving the treatment and the

⁴ Assessors didn't know to which group (placebo or homeopathy) the sows and the piglets belonged.

scientists analysing the results, were all unaware of which groups received the homeopathic medicine and which received placebo. Therefore, the possibility that the difference in results is due to a placebo effect, the farmer taking care of the animals differently, or bias during statistical analysis of the results can all be excluded. The high-quality trial methodology of the study, like the triple blinding, has contributed to its quality of evidence being rated as trustworthy using widely recognised Cochrane⁵ methods⁶. This study meets the demand for high-quality studies in homeopathy and enhances external evidence in the homeopathic field.

Where were the results published?

Camerlink I, Ellinger L, Bakker EJ, Lantinga EA. Homeopathy as replacement to antibiotics in the case of Escherichia coli diarrhoea in neonatal piglets. Homeopathy 2010;99:57-62.

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About HRI

HRI is a UK-based charity dedicated to promoting high quality research in homeopathy at an international level. More information: www.hri-research.org

⁵ Cochrane is an international organization committed to ensuring that decisions on health issues worldwide are based on high quality, relevant and up-to-date scientific evidence.

⁶ Mathie RT, Clausen J. Veterinary homeopathy: systematic review of medical conditions studied by randomised placebo-controlled trials. VetRecord 2014;175(15):373-381.