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PREVALENCE OF *MYCOPLASMA SUIS* IN FARROWING SOWS AND PRE-SUCKLING TRANSMISSION TO THEIR PIGLETS

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Transmission of *Mycoplasma (M.) suis,* the causative agent of infectious anemia in pigs mainly occurs via iatrogenic or zootechnical manipulations or due to ranking fights within animal groups. Moreover, other transmission routes including ingestion of secretes/ excretes, blood-sucking arthropods and intra uterine transmission have thought to play an epidemiological role without being experimentally proven.

To investigate *M. suis* prevalence in sows immediately after birth and a potential transplacental transmission of *M. suis* under field conditions 21 piglet producing farms in Bavaria were selected. On each farm EDTA-anticoagulated blood samples from 9 or 10 sows from each farm (n=208) and from three piglets of each sow (n=622) before colostrum uptake were collected. Samples were tested for *M. suis* by qPCR.

In total, 31.3% of the collected serum samples from sows were positive for *M. suis*. At farm level 76.2% of the investigated farms had at least one *M. suis* positive sample. Overall, *M. suis* was identified by PCR in 14.4% of 474 investigated pre-suckling sera from the 16 *M. suis* positive farms. Among those 68 *M. suis* positive piglets 73.5% piglets were born from *M. suis* positive sows, whereas 26.5% piglets derived from *M. suis* negative sows. Piglets born from a *M. suis* positive dam were significantly more often positive than piglets born from a *M.suis* negative dam ($p<0.001$, OR: 5.2). Mean *M.suis* blood loads of sows was 2.07×10^6 *M. suis*/mL blood and 4.88×10^7 *M. suis*/ mL blood of piglets, respectively. Bacterial blood loads of sows were positively correlated with bacterial blood loads of piglets ($p<0.001$, $rs=0.537$).

The present study provides further insides into *M. suis* infection dynamics as it is the first description of *M. suis* in piglets immediately after birth prior to colostrum intake and the first large scale investigation on *M. suis* prevalence in sows.