Mastitis in sows - current knowledge and opinions
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Mastitis in sows is most frequently observed post partum and affects both sows’ and piglets’ health and welfare. The insufficient intake of colostrum by the piglets can cause apathy, secondary infections, diarrhea or even death. Puerperal mastitis in sows is of complex nature, and known world-wide under several names, with Mastitis-Metritis-Agalactia- Syndrome (MMA), Post partum-Dysgalactia- Syndrome (PDS) or Coliform Mastitis as the important ones. Main clinical signs are mastitis, dysgalactia and fever above 39.5 °C. However, physiological hyperthermia is often observed in postparturient sows, specifically gilts, leading to misinterpretations. Additional clinical examinations of mammary glands, and in particular of behavioral changes in the sows and the piglets, allow more precise diagnoses. As a multifactorial disease, several influences contribute to the clinical picture and can be attributed to the causing pathogens, the environment or the host. Many different pathogens, especially coliforms, have been isolated from the milk of affected sows and environmental factors affect the clinical course of this disease. The host, including the genetic variation and individual factors as well as parity number or birth condition, is an important factor, too. A detailed analysis of phenotypic and genetic variation of puerperal mastitis with a holistic approach was carried out in the recent research project ‘geMMA’ at our Institute. Clinical examinations and detailed bacteriological analyses of milk samples were carried out in order to characterize phenotypic variation. Genetic variation was analyzed through high-throughput genotyping to identify possible candidate genes, and results can be used for subsequent biological analyses of possible disease mechanisms.

Incidence of mastitis and its effect on the productive performances in Rasa Aragonesa ewes
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Rasa Aragonesa is an autochthonous breed of sheep oriented exclusively to meat production, reared in semi-extensive conditions in a 3 lambing/2 years reproductive system. In a first work, the incidence of mastitis has been checked in 106 ewes from 11 flocks. The presence of subclinical mastitis (positives to California Mastitis Test – CMT), lost udder and clinical mastitis (diagnosed by palpation) has been detected in 40.0%; 8.6% and 7.5% ewes, respectively. Bacteriological analysis detected the presence of intra-mammary infection in 44% of the checked ewes with high differences between flocks (from 10% to 70%). In a second work, the number of lambs born and their growth rate have been recorded in 62 ewes showing mastitis, (either positive at CMT or presenting pathological damages in the udder at clinical exploration), comparing with 130 apparently healthy ewes from the same flocks. Affected ewes presented a higher perinatal mortality (14.1 vs. 7.06%) and lower growth rate between birth and weaning at 45 days (-17.1%)