ORAL: THE KOI HERPESVIRUS DISEASE – VIROLOGICAL AND SEROLOGICAL INVESTIGATIONS ON EARLY AND LATE PATHOGENESIS

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KHV diagnostics is recently limited to virological assays which may fail in terms of a persistent KHV infection with a very weak virus load between five and 10 genomic particles per ml. A virus replication after reactivation in fish is possible mainly when a stress situation occurs, e.g. seasonal temperature and hormone changes, netting for transportation or a rapid food change. KHV is replicated in fish to a reasonable and detectable level between 200 and 1.000 genomic particles measured by quantitative real-time PCR (qPCR) in at least 50 to 70% of the collected carp (Cyprinus carpio) samples. If samples from carp are collected directly after catch, often false-negative results can be observed. To close this diagnostical gap due to inclusion of different virological-molecular biological assays with and without induced stress situations and the host immune response by measuring of production of specific antibodies by serum neutralization assay (SNT) and antibody ELISA, a direct result comparison was carried out. Virus replication, virus re-activation and serological response against KHV with and without clinical signs of a KHVD were determined for early and late pathogenesis. The developed tools allow the detection but also the exclusion of a KHV infection which might be happen without any clinical signs.

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Abstracts

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